

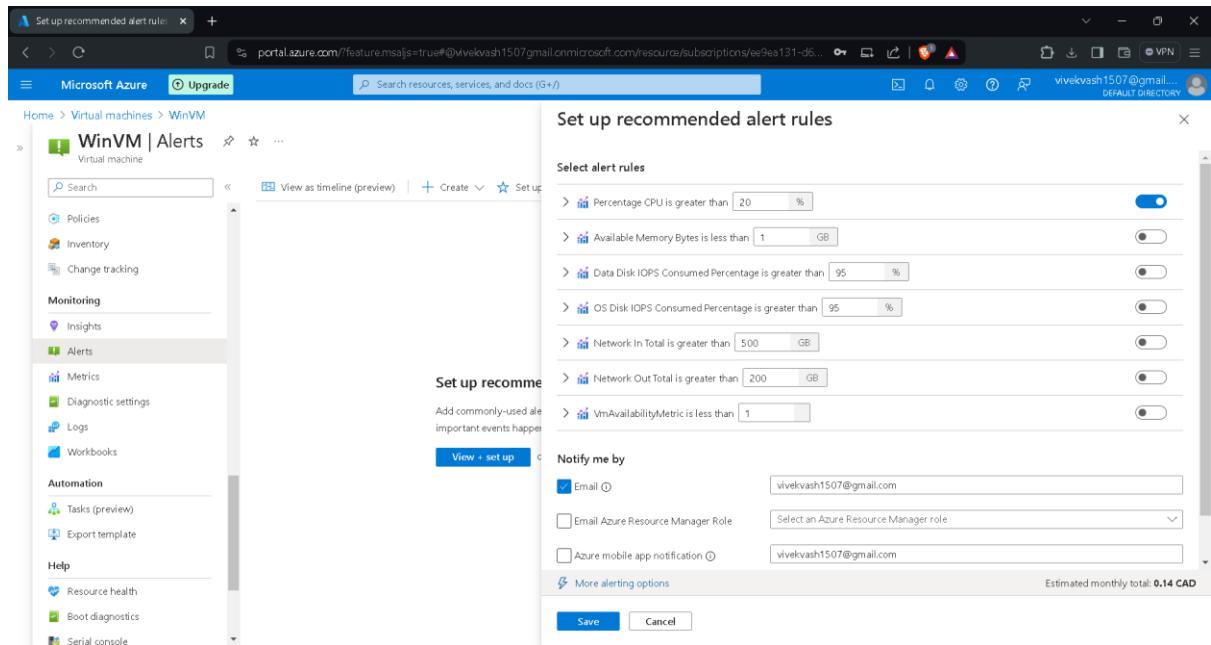
# Lab: Azure Performance Tools

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**Student ID:** 000907246

## Screenshots

- CPU % alert



A WinVM - Microsoft Azure You're now in the recalert1 action group

mail.google.com/mail/u/0/#inbox/FFfcqzQVwnjWWkkzdLHMcBIVSCNtD

Gmail Search mail

You're now in the recalert1 action group

Microsoft Azure <azure-noreply@microsoft.com> to me

Hi, Vivek!

Manage your Google Account

Show more accounts Privacy Policy Terms of Service

You've been added to an Azure Monitor action group

You are now in the recalert1 action group and will receive notifications sent to the group.

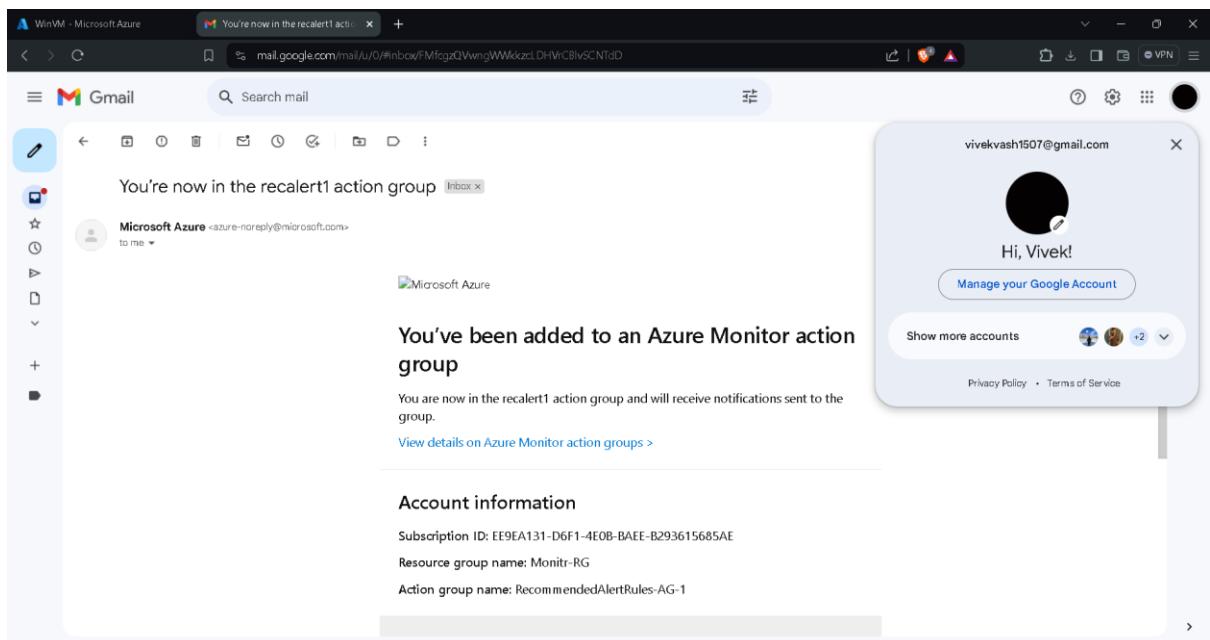
View details on Azure Monitor action groups >

Account information

Subscription ID: EE9EA131-D6F1-4E0B-BAEE-B293615685AE

Resource group name: Monitr-RG

Action group name: RecommendedAlertRules-AG-1



A WinVM - Microsoft Azure Fired:Sev3 Azure Monitor Alert

mail.google.com/mail/u/0/#inbox/FFfcqzQVwnjWWmxoMQNWfhVZVV1DFRQw

Gmail Search mail

Fired:Sev3 Azure Monitor Alert Percentage CPU - WinVM on winvm ( microsoft.compute/virtualmachines ) at 6/4/2024 5:28:29 AM

Microsoft Azure <azure-noreply@microsoft.com> Unsubscribe to me

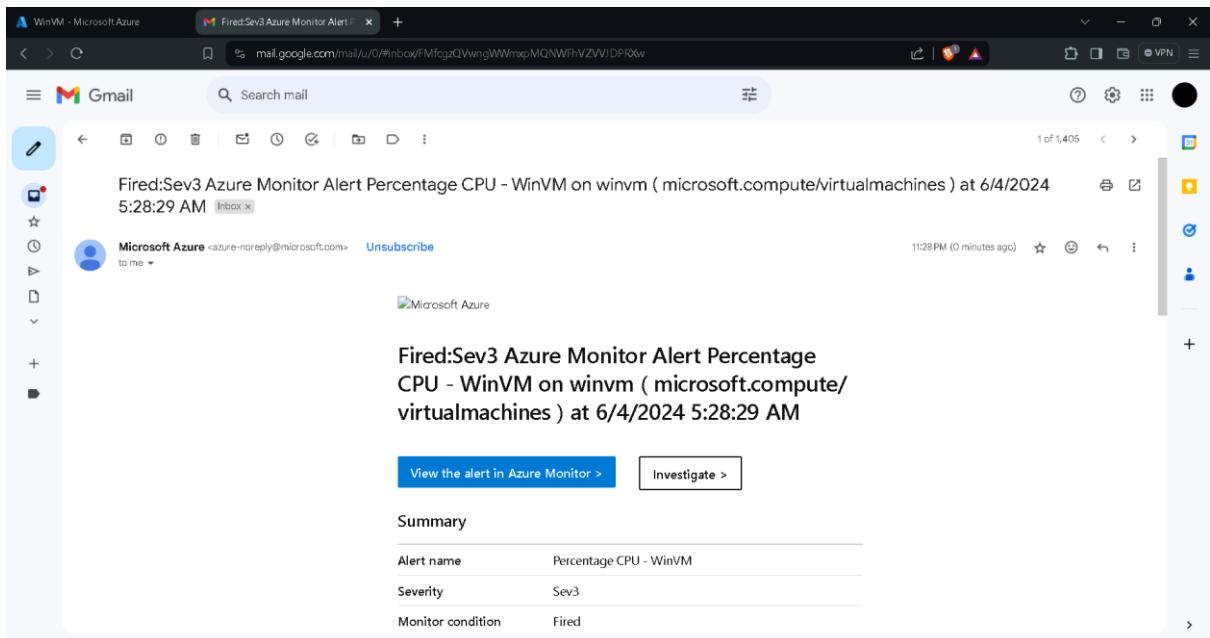
11:28PM (0 minutes ago)

Fired:Sev3 Azure Monitor Alert Percentage CPU - WinVM on winvm ( microsoft.compute/virtualmachines ) at 6/4/2024 5:28:29 AM

View the alert in Azure Monitor > Investigate >

Summary

Alert name	Percentage CPU - WinVM
Severity	Sev3
Monitor condition	Fired



A WinVM - Microsoft Azure Fired:Sev3 Azure Monitor Alert + mail.google.com/mail/u/0/#inbox/FMfgzQVwnqWWlmpMQNWFhVZVVJDP0w

Gmail Search mail

Monitor condition Fired

Affected resource winvm

Resource type microsoft.compute/virtualmachines

Resource group monitr-rg

Monitoring service Platform

Signal type Metric

Fired time June 4, 2024 5:28 UTC

Alert ID f6604656-3a97-4ee0-b2b7-f8abf8e1f000

Alert rule ID <https://portal.azure.com/#resource/subscriptions/ee9ea131-d611-4e0b-bae-b293615685ae/resourceGroups/Monitr-RG/providers/microsoft.insights/metricAlerts/PercentageCPU-WinVM>

Metric alert condition type MultipleResourceMultipleMetricCriteria

Time aggregation Average

Metric name Percentage CPU

A WinVM - Microsoft Azure Fired:Sev3 Azure Monitor Alert + mail.google.com/mail/u/0/#inbox/FMfgzQVwnqWWlmpMQNWFhVZVVJDP0w

Gmail Search mail

Metric alert condition type MultipleResourceMultipleMetricCriteria

Time aggregation Average

Metric name Percentage CPU

Metric namespace Microsoft.Compute/virtualMachines

Metric value 21.42

Operator GreaterThan

Threshold 20

You're receiving this notification as a member of the recalert1 action group.  
[Unsubscribe](#) from emails directed to this group.

[Facebook](#) [Twitter](#) [YouTube](#) [LinkedIn](#)

[Privacy Statement](#)  
Microsoft Corporation, One Microsoft Way, Redmond, WA 98052  
[Microsoft](#)

## - Log Analytics query

The screenshot shows the Microsoft Azure portal interface for a Log Analytics workspace named 'LAW-Test'. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Logs, Settings (Tables, Agents, Usage and estimated costs, Data export, Network isolation, Linked storage accounts, Properties, Locks), Classic (Legacy agents management), and a 'Get Started' section. The main content area displays workspace details: Resource group (move) : monitor-rg, Status : Active, Location : Canada Central, Subscription (move) : Azure subscription 1, Subscription ID : ee9ea131-d6f1-4e0b-baee-b293615685ae, Tags (edit) : Add tags, Workspace Name : LAW-Test, Workspace ID : Be208b38-e30b-426f-89ef-fa1942f8a1bb, Pricing tier : Pay-as-you-go, Access control mode : Use resource or workspace permissions, Operational issues : 0. Below this, there's a 'Get started with Log Analytics' section and a 'Useful links' section with links to Documentation site and Community. A 'JSON View' button is located in the top right corner.

The screenshot shows the Microsoft Azure portal interface for a Storage account named 'lawquery32813281'. The left sidebar contains navigation links for Overview, Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser, Storage Mover, Data storage (Containers, File shares, Queues, Tables), Security + networking (Networking, Front Door and CDN), and a 'Properties' tab. The main content area displays storage account details: Resource group (move) : Monitr-RG, Location : canadacentral, Subscription (move) : Azure subscription 1, Subscription ID : ee9ea131-d6f1-4e0b-baee-b293615685ae, Disk state : Available, Performance : Standard, Replication : Locally-redundant storage (LRS), Account kind : StorageV2 (general purpose v2), Provisioning state : Succeeded, Created : 6/3/2024, 11:34:44 PM, Tags (edit) : Add tags. Below this, there are sections 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). There are also sections for Networking (Allow access from: All networks, Number of private endpoint connections: 0, Network routing: Microsoft network routing).

Diagnostic setting - Microsoft Azure

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

Home > lawquery32813281\_1717479263085 | Overview > lawquery32813281 | Diagnostic settings > Diagnostic setting ...

Save Discard Delete Feedback

A diagnostic setting specifies a list of categories of platform logs and/or metrics that you want to collect from a resource, and one or more destinations that you would stream them to. Normal usage charges for the destination will occur. [Learn more](#) about the different log categories and contents of those logs.

Diagnostic setting name \* Law-Test-DS

Logs

Category groups: audit, allLogs

Categories: Storage Read, Storage Write, Storage Delete

Metrics: Transaction

Destination details

Send to Log Analytics workspace (checked)

Subscription: Azure subscription 1

Log Analytics workspace: LAW-Test (canadacentral)

Archive to a storage account

Stream to an event hub

Send to partner solution

JSON View

Storage accounts - Microsoft Azure | Log - Microsoft Azure

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

Home > Logs Demo

New Query 1\* Run Time range: Last 24 hours Save Share New alertrule Export Pin to Format query

Tables Queries Functions ...

StorageBlobsLogs | where Location contains "westus" | where AuthenticationType contains "SAS" | count

Results Chart

Count > 120420

Query details 1 of 1

## - Successful VM restore

The screenshot shows the Microsoft Azure portal interface for a virtual machine named "WinVMbck". The main content area displays the "Essentials" tab of the VM's properties. Key details include:

- Resource group: Backup-RG
- Status: Running
- Location: Canada Central
- Subscription: Azure subscription 1
- Subscription ID: ee9ea131-d6f1-4e0b-bae6-b293615685ae
- Operating system: Windows (Windows Server 2019 Datacenter)
- Size: Standard B1s (1 vcpu, 1 GiB memory)
- Public IP address: 13.88.225.60
- Virtual network/subnet: WinVmBck-vnet/default
- DNS name: Not configured
- Health state: -
- Time created: 6/4/2024, 6:14 AM UTC

The left sidebar shows the navigation menu for the virtual machine, including Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Connect (with options for Connect, Bastion, and Windows Admin Center), Networking (Network settings, Load balancing, Application security groups, Network manager), Settings (Disks, Extensions + applications), and a general Settings section.

The screenshot shows the Microsoft Azure portal interface for a Recovery Services vault named "bckuprsvvault". The main content area displays the "Overview" tab of the vault's properties. Key details include:

- Public IP address: 13.88.225.60 (Network interface winvmblk764)
- Private IP address (IPv6): -
- Private IP address (IPv6): 10.0.0.4
- Virtual network/subnet: WinVmBck-vnet/default
- DNS name: Configure

The left sidebar shows the navigation menu for the vault, including Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings (Identity, Networking, Properties, Locks), Getting started (Backup, Site Recovery), Protected items (Backup Items, Replicated Items), and Manage.

**Create policy - Microsoft Azure**

Microsoft Azure | Upgrade | portal.azure.com/?feature.msa.js=true#view/Microsoft\_Azure\_DataProtection/V1EnableIaaSVMBackupBlade/\_provisioning...

Home > bckuprsvvault | Backup > Configure backup ...

Policy sub type \* Enhanced

- Multiple backups per day
- Up to 30 days operational tier retention
- Support for Trusted Launch Azure VM
- Support for VMs with Ultra Disks and Premium SSD v2

Backup policy \* Default Policy

Policy name \* Test-Daily-VM

**Backup schedule**

Frequency \* Daily Time \* 12:30 AM Timezone \* (UTC-07:00) Mountain Time (US & Canada)

**Instant restore**

Retain instant recovery snapshot(s) for 2 Day(s)

**Retention range**

Retention of daily backup point At 12:30 AM For 30 Day(s)

Retention of weekly backup point On \* Sunday At 12:30 AM For 12 Week(s)

OK

The list contains the policies pertaining to the selected policy sub type. [Learn more.](#)

**Policy details**

Full backup

**Backup frequency**  
Daily at 4:00 PM UTC

**Instant restore**  
Retain instant recovery snapshot(s) for 2 day(s)

**Retention of daily backup point**  
Retain backup taken every day at 4:00 PM for 30 Day(s)

Consistency type \* Application or file-system consistent

**Virtual machines**

Name Resource group

Enable backup Download a template for automation

**ConfigureProtection-1717482245022** | Overview

Deployment

Search Delete Cancel Redeploy Download Refresh

**Your deployment is complete**

Deployment name : ConfigureProtection-1717482245022 Start time : 6/4/2024, 12:24:06 AM

Subscription : Azure subscription 1 Correlation ID : b3958641-4030-47c6-a20b-5c0a9a8c84ab

Resource group : Bckup-RG

**Deployment details**

Resource	Type	Status	Operation details
bckuprsvvault/Azure/IaaSVMContainerjaasvmc	Backup Item	OK	<a href="#">Operation details</a>
bckuprsvvault/Test-Daily-VM	Microsoft.RecoveryServices/vault	OK	<a href="#">Operation details</a>

**Next steps**

Go to resource

**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 >](#)

A Restore Virtual Machine - Microsoft Azure

portal.azure.com/?feature.msa.js=true#view/Microsoft\_Azure\_DataProtection/V1RestoreasVMViewModel/protectedItemId/%2... VPN

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

vivekvash1507@gmail.com DEFAULT DIRECTORY (vivekva...)

Home > Backup center | Backup instances > Start: Restore

## Restore Virtual Machine

WinVMbk

Restore allows you to restore VM/disks from a selected Restore Point.

Restore point \*  Select

Data Store

Restore configuration

Create new  Replace existing

ⓘ To create an alternate configuration when restoring your VM (from the following menus), use PowerShell cmdlets.

Restore Type \*

Virtual machine name \*   ⓘ

Resource group \*   ⓘ

Virtual network \*   ⓘ

Subnet \*   ⓘ

Restore Give feedback

A Restore Virtual Machine - Microsoft Azure

portal.azure.com/?feature.msa.js=true#view/Microsoft\_Azure\_DataProtection/V1RestoreasVMViewModel/protectedItemId/%2... VPN

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

vivekvash1507@gmail.com DEFAULT DIRECTORY (vivekva...)

Home > Backup center | Backup instances > Start: Restore

## Restore Virtual Machine

WinVMbk

Create new  Replace existing

ⓘ To create an alternate configuration when restoring your VM (from the following menus), use PowerShell cmdlets.

Restore Type \*

Virtual machine name \*   ⓘ

Resource group \*   ⓘ

Virtual network \*   ⓘ

Subnet \*   ⓘ

Staging Location \*   ⓘ Can't find your storage account?

ⓘ The identities listed here are based on the MSI configurations in the corresponding Recovery services vault [Learn more](#).

Identities  Disabled

Restore Give feedback

Virtual machines - Microsoft Azure

portal.azure.com/?feature.msa.js=true&view=HubExtension/BrowseResources/resourceType/Microsoft.Compute%2fVirtualMachi...

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

vivekvash1507@gmail.com DEFAULT DIRECTORY (VIVEKVA...)

Home > Virtual machines

Virtual machines

Show 1 to 2 of 2 records.

Name	Type	Subscription	Resource group	Location	Status	Operating system	Public IP address	Disk size
Test-VMB	Virtual machine	Azure subscription 1	Backup-RG	Canada Central	Running	Windows	Standard_B1s	20.635.5
WinVmBck	Virtual machine	Azure subscription 1	Backup-RG	Canada Central	Running	Windows	Standard_B1s	13.88225.60

Notifications

More events in the activity log → Dismiss all

Triggering restore for WinVmBck

Restore triggered successfully. Please monitor progress in backup jobs page. 2 minutes ago

< Previous Page 1 of 1 Next >

Give feedback

Test-VMB - Microsoft Azure

portal.azure.com/?feature.msa.js=true&@vivekvash1507@gmail.commicrosoft.com/resources/subscriptions/e9ea131-d6f1-4e0b-b...

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

vivekvash1507@gmail.com DEFAULT DIRECTORY (VIVEKVA...)

Home > Virtual machines > Test-VMB

Virtual machines

Test-VMB

Filter for any field...

Name: Test-VMB, WinVmBck

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

Essentials

Resource group (move) Backup-RG

Status: Running

Location: Canada Central

Subscription (move) Azure subscription 1

Subscription ID: e9ea131-d6f1-4e0b-bae-b293615685ae

Operating system: Windows (Windows Server 2019 Datacenter)

Size: Standard\_B1s

Public IP address: 20.635.5

Virtual network/subnet: WinVmBck-net/default

DNS name: Not configured

Health state: -

Time created: 6/4/2024, 7:03 AM UTC

Tags: (edit) Add tags

Properties Monitoring Capabilities (8) Recommendations Tutorials

Virtual machine

Computer name: WinVmBck

Operating system: Windows (Windows Server 2019 Datacenter)

Networking

Public IP address: 20.635.5 (Network interface: Test-VMB-nic-73dBeec1901B4920Ba23db71f72c4fec )

## - Successful VM replication failover

The screenshot shows the Azure portal interface for VM-A. The main content area displays the following details:

Essentials	
Resource group (move)	: SOURCE-RG
Status	: Running
Location	: Canada Central
Subscription (move)	: Azure subscription 1
Subscription ID	: ee9ea131-d6f1-4e0b-bae0-b293615685ae
Operating system	: Windows
Size	: Standard B1s (1 vcpu, 1 GiB memory)
Public IP address	: 4.206.184.154
Virtual network/subnet	: Source-Vnet/Source-Subnet
DNS name	: Not configured
Health state	: -
Time created	: 6/4/2024, 5:08 PM UTC

Below the essentials section, there is a "Properties" tab selected, showing the following configuration details:

Virtual machine	
Computer name	: VM-A
Operating system	: Windows
VM generation	: V2
VM architecture	: x64
Agent status	: Not Ready

On the right side, there is a "Networking" section showing the public IP address and subnet information.

The screenshot shows the Azure portal interface for VM-B. The main content area displays the following details:

Essentials	
Resource group (move)	: SOURCE-RG
Status	: Running
Location	: Canada Central
Subscription (move)	: Azure subscription 1
Subscription ID	: ee9ea131-d6f1-4e0b-bae0-b293615685ae
Operating system	: Windows (Windows Server 2019 Datacenter)
Size	: Standard B1s (1 vcpu, 1 GiB memory)
Public IP address	: 52.228.14.88
Virtual network/subnet	: Source-Vnet/Source-Subnet
DNS name	: Not configured
Health state	: -
Time created	: 6/4/2024, 5:15 PM UTC

Below the essentials section, there is a "Properties" tab selected, showing the following configuration details:

Virtual machine	
Computer name	: VM-B
Operating system	: Windows (Windows Server 2019 Datacenter)
VM generation	: V2
VM architecture	: x64
Agent status	: Ready
Agent version	: 2.741491.1095
Hibernation	: Disabled

On the right side, there is a "Networking" section showing the public IP address and subnet information.

[SiteRecovery-vault - Microsoft Azure](#)

Microsoft Azure | Upgrade | portal.azure.com/feature/msaljs=true#vivikvash1507@gmail.com/resources/subscriptions/e9ea131-d6f1-4e0b-b... | Search resources, services, and docs (G+)

vivekvash1507@gmail.com | DEFAULT DIRECTORY (VIVEKVA...)

Home > Microsoft Recovery Services V2-1717523039867 | Overview >

## SiteRecovery-vault

Recovery Services vault

Search

+ Backup + Enable Site Recovery Delete Refresh Feedback

Try our new Business Continuity Center for the at scale BCDR management of your resources protected across Azure Backup and Site Recovery. →

Essentials

Overview Backup Site Recovery JSON View

Overview Backup Site Recovery

What's new

SAP HANA database instance snapshots on Azure VMs is now generally available. →

HANA System Replication (HSR) support for SAP HANA DB on Azure VM backup is now generally available. →

Cross Subscription Restore for SAP HANA Databases on Azure VM is now generally available. →

Cross Subscription Restore for SQL Databases on Azure VM is now generally available. →

Cross Subscription Restore for Azure Virtual Machines is now generally available. →

Site Recovery replicated items and jobs views across subscriptions, regions and vaults are now available →

Azure Backup Metrics are now in public preview →

Migration for Azure VM backups from standard policy to enhanced policy is now in public preview →

Azure Site Recovery support for Windows Azure Trusted Launch VMs is in public preview →

Backup Site Recovery

Protected items

Backup items Replicated items

[Site Recovery jobs - Microsoft Azure](#)

Microsoft Azure | Upgrade | portal.azure.com/feature/msaljs=true#view/Microsoft\_Azure\_RecoveryServices/ReplicationJobsBlade/statusFilterParameter/ | Search resources, services, and docs (G+)

vivekvash1507@gmail.com | DEFAULT DIRECTORY (VIVEKVA...)

Home >

## Site Recovery jobs

SiteRecovery-vault

Filter Export jobs

Try our new Business Continuity Center for the at scale BCDR management of your resources protected across Azure Backup and Site Recovery. →

Notifications

More events in the activity log → Dismiss all ▾

Enabling replication for 2 vm(s) ×

Successfully completed the operation.

a few seconds ago

Filter items...

Name	Status	Type	Item	Start time	Duration
Enable replication	Successful	Protected item	vm-a	6/4/2024, 11:57:51 AM	00:06:28
Enable replication	Successful	Protected item	vm-b	6/4/2024, 11:57:47 AM	00:08:29
Associate replication policy	Successful	Replication policy	24-hour-retention-policy	6/4/2024, 11:55:42 AM	00:01:58
Map Networks	Successful	Network	source-vnet-asr	6/4/2024, 11:53:54 AM	00:00:01
Associate replication policy	Successful	Replication policy	24-hour-retention-policy	6/4/2024, 11:53:54 AM	00:01:38
Create protection container	Successful	Cloud	asr-a2a-default-canadaeast...	6/4/2024, 11:53:22 AM	00:00:10
Map Networks	Successful	Network	source-vnet	6/4/2024, 11:53:22 AM	00:00:01
Create a site	Successful	Server	asr-a2a-default-canadaste...	6/4/2024, 11:51:46 AM	00:01:23
Create protection container	Successful	Cloud	asr-a2a-default-canadacen...	6/4/2024, 11:51:41 AM	00:00:00
Create a site	Successful	Server	asr-a2a-default-canadacen...	6/4/2024, 11:50:06 AM	00:01:26
Create replication policy	Successful	Replication policy	24-hour-retention-policy	6/4/2024, 11:50:02 AM	00:00:00

VM-A - Microsoft Azure

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | portal.azure.com/?feature.msa\$=true#view/Microsoft\_Azure\_RecoveryServices/ReplicationProtectedItemSettingsMenuBlade/~/... | Home | Recovery Services vaults | SiteRecovery-vault | Replicated items | VM-A | Overview | Replicated items | Failover | Test Failover | Cleanup test failover | Commit | Resynchronize | Change recovery point | Re-protect | Disable Replication | Error Details | Refresh | JSON View

Home > Recovery Services vaults > SiteRecovery-vault | Replicated items > VM-A

**VM-A**

Replicated items

Search

Overview

General

Properties

Compute

Network

Disks

Health and status

Replication Health: Healthy

Status: Protected

RPO: 27 secs [As on 6/4/2024, 12:25:45 PM]

Failover readiness

Last successful Test Failover: Never performed successfully

Configuration issues: No issues

Agent version: 9.61.7055.1

Agent status: Healthy

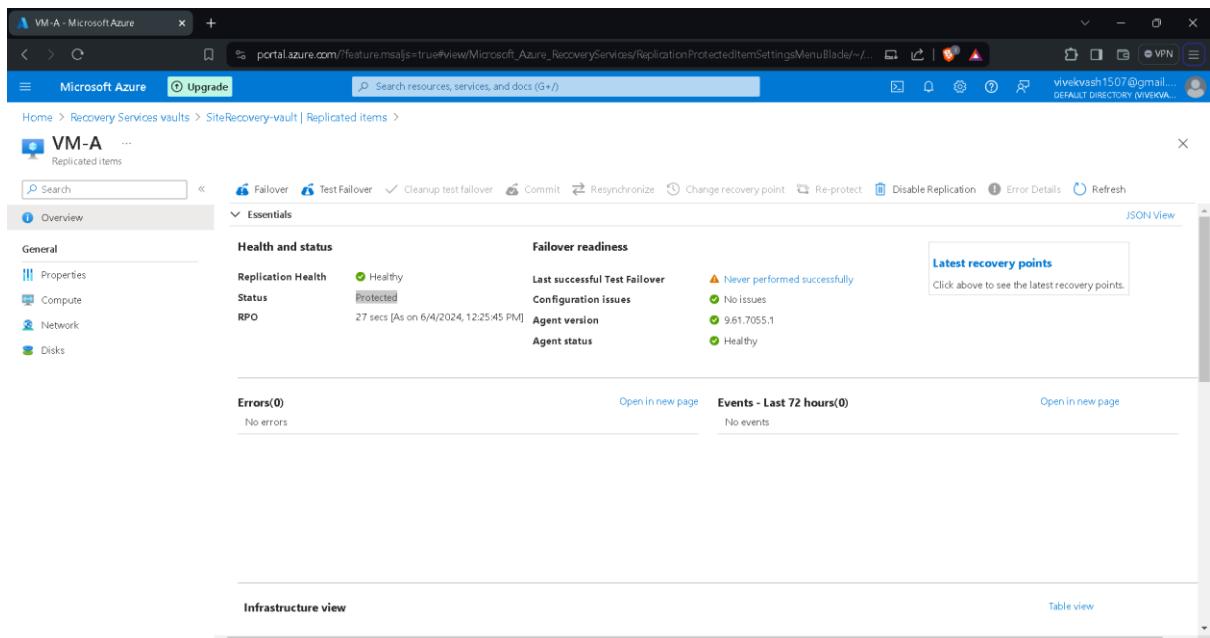
Latest recovery points

Click above to see the latest recovery points.

Errors(0) Open in new page | No errors

Events - Last 72 hours(0) Open in new page | No events

Infrastructure view Table view



Test failover - Microsoft Azure

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | portal.azure.com/?feature.msa\$=true#view/Microsoft\_Azure\_SiteRecovery/TestFailover/ReactView/replicationType/A2A/protecte... | Home | Recovery Services vaults | SiteRecovery-vault | Replicated items | VM-A | Test failover | VM-A

Test failover

Pre-validation successful

Test failover direction

Source: Canada Central

Destination: Canada East

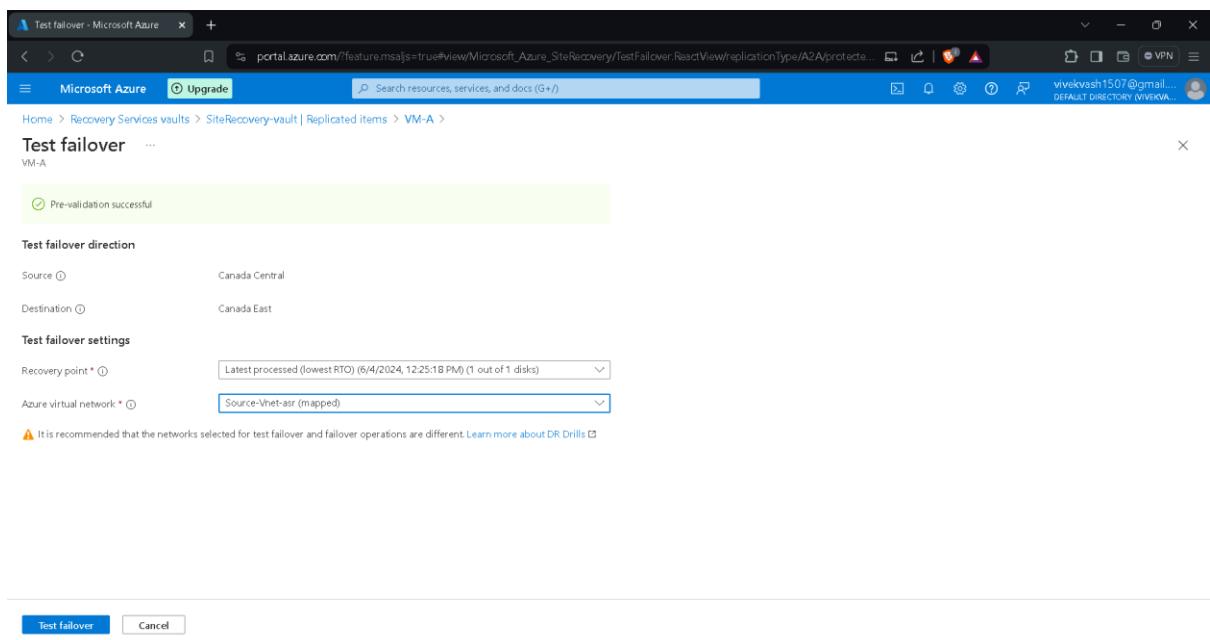
Test failover settings

Recovery point: Latest processed (lowest RTO) (6/4/2024, 12:25:18 PM) (1 out of 1 disks)

Azure virtual network: Source-Vhet-asr (mapped)

**Warning:** It is recommended that the networks selected for test failover and failover operations are different. Learn more about DR Drills

Test failover Cancel



- Created public load balancer with the CLI

```
vivek [ ~ ]$ az group create --name CreatePubLBQ8-rg --location eastus
{
  "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg",
  "location": "eastus",
  "managedBy": "null",
  "name": "CreatePubLBQ8-rg",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
vivek [ ~ ]$ az network vnet create --resource-group CreatePubLBQ8-rg --location eastus --name myVNet --address-prefixes 10.1.0.0/16 --subnet-name myBackendSubnet --subnet-prefixes 10.1.0.0/24
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "newVNet": {
    "addressSpace": {
      "addressPrefixes": [
        "10.1.0.0/16"
      ]
    },
    "enableAddressFiltering": false,
    "etag": "W/"8549a87d-a25f-4542-97c4-bfa5cfcd5d42"",
    "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/virtualNetworks/myVNet",
    "location": "eastus",
    "name": "myVNet",
    "provisioningState": "Succeeded",
    "resourceGroup": "CreatePubLBQ8-rg",
    "resourceGuid": "6326d4ad-cc04-411d-8240-b82cd2ae6b8a",
    "subnets": [
      {
        "addressPrefix": "10.1.0.0/24",
        "delegations": [],
        "etag": "W/"8549a87d-a25f-4542-97c4-bfa5cfcd5d42"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/subnets/myBackendSubnet"
      }
    ]
  }
}
```

```
vivek [ ~ ]$ az network public-ip create --resource-group CreatePubLBQ8-rg --name myPublicIP --sku Standard --zone 1 2 3
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "publicIp": {
    "ddosSettings": {
      "protectionMode": "VirtualNetworkInherited"
    },
    "etag": "W/"0f27e90-25da-4b1b-8d90-74c0018b0000"",
    "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myPublicIP",
    "idleTimeoutInMinutes": 4,
    "ipAddress": "4.157.172.31",
    "ipTags": [],
    "location": "eastus",
    "name": "myPublicIP",
    "provisioningState": "Succeeded",
    "publicIPAddressVersion": "IPv4",
    "publicIPAllocationMethod": "Static",
    "resourceGroup": "CreatePubLBQ8-rg",
    "resourceGuid": "8aad60f8-cbb6-4a76-9838-7fbfb029a24c",
    "sku": {
      "name": "Standard",
      "tier": "Regional"
    },
    "type": "Microsoft.Network/publicIPAddresses",
    "zones": [
      "1",
      "2",
      "3"
    ]
  }
}
vivek [ ~ ]$ az network lb create --resource-group CreatePubLBQ8-rg --name myLoadBalancer --sku Standard --public-ip-address myPublicIP --frontend-ip-name myFrontEnd --back
end-pool-name myBackEndPool
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "loadBalancer": {
    "backendAddressPools": [
      {
        "etag": "W/"ba14782c-dce9-4641-8747-808d2aae0487"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/backendAddressPo
ols/myBackendPool",
        "name": "myBackEndPool",
        "properties": {
          "loadBalancerBackendAddresses": []
        },
        "provisioningState": "Succeeded"
      },
      "resourceGroup": "CreatePubLBQ8-rg",
      "type": "Microsoft.Network/loadBalancers/backendAddressPools"
    ],
    "frontendIPConfigurations": [
      {
        "etag": "W/"ba14782c-dce9-4641-8747-808d2aae0487"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/frontendIPConfig
urations/myFrontEnd",
        "name": "myFrontEnd",
        "properties": {
          "privateIPAllocationMethod": "Dynamic",
          "provisioningState": "Succeeded",
          "publicIPAddress": {
            "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myPublicIP",
            "resourceGroup": "CreatePubLBQ8-rg"
          }
        },
        "resourceGroup": "CreatePubLBQ8-rg",
        "type": "Microsoft.Network/loadBalancers/frontendIPConfigurations"
      }
    ]
  }
}
```

```
vivek [ ~ ]$ az network lb create --resource-group CreatePubLBQ8-rg --name myLoadBalancer --sku Standard --public-ip-address myPublicIP --frontend-ip-name myFrontEnd --back
end-pool-name myBackEndPool
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "loadBalancer": {
    "backendAddressPools": [
      {
        "etag": "W/"ba14782c-dce9-4641-8747-808d2aae0487"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/backendAddressPo
ols/myBackendPool",
        "name": "myBackEndPool",
        "properties": {
          "loadBalancerBackendAddresses": []
        },
        "provisioningState": "Succeeded"
      },
      "resourceGroup": "CreatePubLBQ8-rg",
      "type": "Microsoft.Network/loadBalancers/backendAddressPools"
    ],
    "frontendIPConfigurations": [
      {
        "etag": "W/"ba14782c-dce9-4641-8747-808d2aae0487"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/frontendIPConfig
urations/myFrontEnd",
        "name": "myFrontEnd",
        "properties": {
          "privateIPAllocationMethod": "Dynamic",
          "provisioningState": "Succeeded",
          "publicIPAddress": {
            "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myPublicIP",
            "resourceGroup": "CreatePubLBQ8-rg"
          }
        },
        "resourceGroup": "CreatePubLBQ8-rg",
        "type": "Microsoft.Network/loadBalancers/frontendIPConfigurations"
      }
    ]
  }
}
```

```
vivek [ ~ ]$ az network lb probe create --resource-group CreatePubLBQ8-rg --lb-name myLoadBalancer --name myHealthProbe --protocol tcp --port 80
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "etag": "W/\"2f24dab0-3d9-4ed-a1fe-521650962af0\"",
  "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/probes/myHealthProbe",
  "intervalInSeconds": 15,
  "name": "myHealthprobe",
  "numberOfProbes": 2,
  "port": 80,
  "probeThreshold": 1,
  "protocol": "tcp",
  "provisioningState": "Succeeded",
  "resourceGroup": "CreatePubLBQ8-rg",
  "type": "Microsoft.Network/loadBalancers/probes"
}
vivek [ ~ ]$ az network lb rule create --resource-group CreatePubLBQ8-rg --lb-name myLoadBalancer --name myHTTPRule --protocol http --frontend-port 80 --backend-port 80 --fr
ontend-ip-name myFrontEnd --backend-pool-name myBackEndPool --probe-name myHealthProbe --disable-outbound-snat true --idle-timeout 15 --enable-tcp-reset true
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "backendAddressPool": {
    "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/backendAddressPools/
myBackEndPool",
    "resourceGroup": "CreatePubLBQ8-rg"
  },
  "backendAddressPools": [
    {
      "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/backendAddressPool
s/myBackEndPool",
      "resourceGroup": "CreatePubLBQ8-rg"
    }
  ],
  "backendPort": 80,
  "disableOutboundNat": true,
  "enableFloatingIP": false,
  "enableTcpReset": true,
  "etag": "W/\"0bfff6cd-6b96-4ae7-870b-72960ef8283a\""
}
```

```
vivek [ ~ ]$ az network nsg create --resource-group CreatePubLBQ8-rg --name myNSG
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "NewNsg": {
    "defaultSecurityRules": [
      {
        "access": "Allow",
        "description": "Allow inbound traffic from all VMs in VNET",
        "destinationAddressPrefix": "VirtualNetwork",
        "destinationAddressPrefixes": [],
        "destinationPortRange": "*",
        "destinationPortRanges": [],
        "direction": "Inbound",
        "etag": "W/\"7586b765-5a36-416a-a959-00684bc258a4\"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/networkSecurityGroups/myNSG/defaultSecurityRu
les/AllowVmInbound",
        "name": "AllowVmInbound",
        "priority": 65000,
        "protocol": "*",
        "provisioningState": "Succeeded",
        "resourceGroup": "CreatePubLBQ8-rg",
        "sourceAddressPrefix": "VirtualNetwork",
        "sourceAddressPrefixes": [],
        "sourcePortRange": "*",
        "sourcePortRanges": [],
        "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
      },
      {
        "access": "Allow",
        "description": "Allow inbound traffic from azure load balancer",
        "destinationAddressPrefix": "*",
        "destinationAddressPrefixes": [],
        "destinationPortRange": "*",
        "destinationPortRanges": [],
        "direction": "Inbound",
        "etag": "W/\"7586b765-5a36-416a-a959-00684bc258a4\"",
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/networkSecurityGroups/myNSG/defaultSecurityRu
```

```
vivek [ ~ ]$ az network nsg rule create --resource-group CreatePubLBQ8-rg --nsg-name myNSG --name myNSGRuleHTTP --protocol '*' --direction inbound --source-address-prefix '*' --source-port-range '*' --destination-address-prefix '*' --destination-port-range 80 --access allow --priority 200
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "access": "Allow",
  "destinationAddressPrefix": "*",
  "destinationAddressPrefixes": [],
  "destinationPortRange": "80",
  "destinationPortRanges": [],
  "direction": "Inbound",
  "etag": "#/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/networkSecurityGroups/myNSG/securityRules/myNSGRuleHTTP",
  "name": "myNSGRuleHTTP",
  "priority": 200,
  "protocol": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "CreatePubLBQ8-rg",
  "sourceAddressPrefix": "*",
  "sourceAddressPrefixes": [],
  "sourcePortRange": "*",
  "sourcePortRanges": [],
  "type": "Microsoft.Network/networkSecurityGroups/securityRules"
}
vivek [ ~ ]$ vivek [ ~ ]$ az network public-ip create --resource-group CreatePubLBQ8-rg --name myBastionIP --sku Standard --zone 1 2 3
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "publicIp": {
    "addressSettings": {
      "protectionMode": "VirtualNetworkInherited"
    },
    "etag": "#/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myBastionIP",
    "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myBastionIP",
    "idleTimeoutInMinutes": 4,
    "ipAddress": "4.157.175.105",
    "ipTags": []
  }
}
```

```
vivek [ ~ ]$ vivek [ ~ ]$ az network vnet subnet create --resource-group CreatePubLBQ8-rg --name AzureBastionSubnet --vnet-name myVNet --address-prefixes 10.1.1.0/27
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "addressPrefix": "10.1.1.0/27",
  "delegations": [],
  "etag": "#/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/AzureBastionSubnet",
  "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/AzureBastionSubnet",
  "name": "AzureBastionSubnet",
  "privateEndpointNetworkPolicies": "Disabled",
  "privateLinkServiceNetworkPolicies": "Enabled",
  "provisioningState": "Succeeded",
  "resourceGroup": "CreatePubLBQ8-rg",
  "type": "Microsoft.Network/virtualNetworks/subnets"
}
vivek [ ~ ]$
```

```
vivek [ ~ ]$ vivek [ ~ ]$ az network bastion create --resource-group CreatePubLBQ8-rg --name myBastionHost --public-ip-address myBastionIP --vnet-name myVNet --location eastus
This command is in preview and under development. Reference and support levels: https://aka.ms/CLif_refstatus
{
  "disableDnsName": false,
  "dnsName": "bast-3fb546fa-c6e9-4ae5-9dbc-3d4d050f9081.bastion.azure.com",
  "enableSslConnect": false,
  "enableTLS10": false,
  "etag": "#/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/bastionHosts/myBastionHost",
  "ipConfigurations": [
    {
      "etag": "#/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/bastionHosts/myBastionHost",
      "ipConfigurations": [
        {
          "etag": "#/subscriptions/e9ea131-d409-4432-b08b-0af65bc78aba",
          "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/bastionHosts/myBastionHost/bastionHostIpConfigurations/bastion_ip_config",
          "name": "bastion_ip_config",
          "privateIPAllocationMethod": "Dynamic",
          "provisioningState": "Succeeded",
          "publicIPAddress": {
            "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myBastionIP",
            "resourceGroup": "CreatePubLBQ8-rg"
          },
          "resourceGroup": "CreatePubLBQ8-rg",
          "subnet": {
            "id": "/subscriptions/e9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/AzureBastionSubnet",
            "resourceGroup": "CreatePubLBQ8-rg"
          },
          "type": "Microsoft.Network/bastionHosts/bastionHostIpConfigurations"
        }
      ],
      "location": "eastus",
      "name": "myBastionHost",
      "provisioningState": "Succeeded",
      "resourceGroup": "CreatePubLBQ8-rg",
      "scaleUnits": 2,
      "sku": {
        "name": "standard"
      }
    }
  ]
}
```

```
vivek | ~ $S array=(myNicVM1 myNicVM2)
for vmnic in "$S[@]"
do
    az network nic create --resource-group CreatePubLBQS-rg --name $vmnic --vnet-name myVNet --subnet myBackEndSubnet --network-security-group myNSG
done
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
()
"Name": "myNicVM2",
"auxiliaryMode": "None",
"auxiliarySku": "None",
"disableTcpStateTracking": false,
"dnssettings": {
    "appliedDnsServers": [],
    "dnsServers": []
},
"internalDomainNameSuffix": "udkcmyyezqoudasaxawnflrc.bx.internal.cloudapp.net"
},
"enableAcceleratedNetworking": false,
"enableIPForwarding": false,
"etag": "W/\"900b337c-bd69-4aee-bbb9-8fcf567d4e1e\"",
"hostedWorkloads": [],
"id": "/subscriptions/e9ea131-d6f1-4e0b-baaa-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/networkInterfaces/myNicVM1",
"ipConfigurations": [
{
    "etag": "W/\"900b337c-bd69-4aee-bbb9-8fcf567d4e1e\"",
    "id": "/subscriptions/e9ea131-d6f1-4e0b-baaa-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/networkInterfaces/myNicVM1/ipConfigurations/i
pcfg1",
    "name": "ipconfig1",
    "primary": true,
    "privateIPAddress": "10.1.0.4",
    "privateIPAddressVersion": "IPv4",
    "privateIPAllocationMethod": "Dynamic",
    "provisioningState": "Succeeded",
    "resourceGroup": "CreatePubLBQS-rg",
    "subnet": {
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baaa-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/myBackEndSub
net",
        "resourceGroup": "CreatePubLBQS-rg"
    }
}
]
```

```
vivek | ~ $S az vm create --resource-group CreatePubLBQS-rg --name myVM1 --nics myNicVM1 --image win2019datacenter --admin-username azureuser --zone 1 --no-wait
Admin Password:
Confirm Admin Password:
vivek | ~ $S
vivek | ~ $S az vm create --resource-group CreatePubLBQS-rg --name myVM2 --nics myNicVM2 --image win2019datacenter --admin-username azureuser --zone 2 --no-wait
Admin Password:
Confirm Admin Password:
vivek | ~ $S
vivek | ~ $S array=(myNicVM1 myNicVM2)
for vmnic in "$S[@]"
do
    az network nic ip-config address-pool add --address-pool myBackendPool --ip-config-name ipcfg1 --nic-name $vmnic --resource-group CreatePubLBQS-rg --lb-name myLoadBa
lancer
done
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
(
    "etag": "W/\"09a9a841-0a6e-4ac2-86e2d53d764f1\"",
    "id": "/subscriptions/e9ea131-d6f1-4e0b-baaa-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/networkInterfaces/myNicVM1/ipConfigurations/ipcfg1",
    "loadBalancerBackendAddressPools": [
        {
            "id": "/subscriptions/e9ea131-d6f1-4e0b-baaa-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/loadBalancers/myLoadBalancer/backendAddressPool
s/myBackEndPool",
            "resourceGroup": "CreatePubLBQS-rg"
        }
    ],
    "name": "ipcfg1",
    "primary": true,
    "privateIPAddresses": "10.1.0.4",
    "privateIPAllocationVersion": "IPv4",
    "privateIPAllocationMethod": "Dynamic",
    "provisioningState": "Succeeded",
    "resourceGroup": "CreatePubLBQS-rg",
    "subnet": {
        "id": "/subscriptions/e9ea131-d6f1-4e0b-baaa-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/myBackEndSubnet",
        "resourceGroup": "CreatePubLBQS-rg"
    }
},
```

```
vivek [ ~ ]$ az network public-ip create --resource-group CreatePublBQS-rg --name myNATgatewayIP --sku Standard --zone 1 2 3
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "publicIp": {
    "ddosSettings": {
      "protectionMode": "VirtualNetworkInherited"
    },
    "etag": "/\"6afe6180-bdcf-480b-9b06-e6bacd1a3dd\"",
    "id": "/subscriptions/ee9ea131-df6f-4e0b-baee-b293615685ae/resourceGroups/CreatePublBQS-rg/providers/Microsoft.Network/publicIPAddresses/myNATgatewayIP",
    "idleTimeoutInMinutes": 4,
    "ipAddress": "51.8.56.182",
    "ipVersion": "IPv4",
    "location": "sasstus",
    "name": "myNATgatewayIP",
    "provisioningState": "Succeeded",
    "publicIPAddressVersion": "IPv4",
    "publicIPAllocationMethod": "Static",
    "resourceGroup": "CreatePublBQS-rg",
    "resourceGuid": "0877ff940-9eb2-44bd-8af2-bb901740d461",
    "sku": {
      "name": "Standard",
      "tier": "Regional"
    },
    "type": "Microsoft.Network/publicIPAddresses",
    "zones": [
      "1",
      "2",
      "3"
    ]
  }
}
vivek [ ~ ]$ az network nat gateway create --resource-group CreatePublBQS-rg --name myNATgateway --public-ip-addresses myNATgatewayIP --idle-timeout 10
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "etag": "/\"a45bf02a-eea0-45a4-a45c-983875e1c2b3"",
  "id": "/subscriptions/ee9ea131-df6f-4e0b-baee-b293615685ae/resourceGroups/CreatePublBQS-rg/providers/Microsoft.Network/natGateways/myNATgateway",
  "location": "sasstus",
  "name": "myNATgateway",
  "provisioningState": "Succeeded",
  "publicIP": {
    "id": "/subscriptions/ee9ea131-df6f-4e0b-baee-b293615685ae/resourceGroups/CreatePublBQS-rg/providers/Microsoft.Network/publicIPAddresses/myNATgatewayIP"
  },
  "publicIPName": "myNATgatewayIP",
  "publicIPType": "Dynamic",
  "publicPort": 80,
  "privatePort": 8080,
  "publicIPAllocationMethod": "Static",
  "privateIPAllocationMethod": "Dynamic"
}
```

```
vivek [ ~ ]$ az network nat gateway create --resource-group CreatePubLBQ8-rg --name myNATgateway --public-ip-addresses myNATgatewayIP --idle-timeout 10
Command group "az network" is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus

{
  "etag": "0\\/{a45bf82a-eaa8-45a4-a45c-9983075alc2b33}",
  "id": "/subscriptions/e9e9a131-df61-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/natGateways/myNATgateway",
  "idleTimeoutInMinutes": 10,
  "location": "eastus",
  "name": "myNATgateway",
  "provisioningState": "Succeeded",
  "publicIpAddresses": [
    {
      "id": "/subscriptions/e9e9a131-df61-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/publicIPAddresses/myNATgatewayIP",
      "resourceGroup": "CreatePubLBQ8-rg"
    }
  ],
  "resourceGroup": "CreatePubLBQ8-rg",
  "resourceGuid": "d8fa75fc-c438-4322-9148-87a2d0db4e4d",
  "sku": {
    "name": "Standard"
  },
  "type": "Microsoft.Network/natGateways"
}

vivek [ ~ ]$ 
vivek [ ~ ]$ az network vnet subnet update --resource-group CreatePubLBQ8-rg --vnet-name myVNet --name myBackendSubnet --nat-gateway myNATgateway
Command group "az network" is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "addressPrefix": "10.1.0.0/24",
  "delegations": [],
  "etag": "0\\/{dc1e059-9bb0-4dd-9967-6b68353d3d94}",
  "id": "/subscriptions/e9e9a131-df61-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQ8-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/myBackendSubnet",
  "ipConfigurations": [
    {
      "id": "/subscriptions/e9e9a131-df61-4e0b-baee-b293615685ae/resourceGroups/CREATEPUBLBQ8-RG/providers/Microsoft.Network/networkInterfaces/MYNICVM1/ipConfigurations/IPC
ONFIG1"
      "resourceGroup": "CREATEPUBLBQ8-RG"
    }
  ]
}
```

```
vivek [ ~ ]$ az network vnet subnet update --resource-group CreatePubLBQS-rg --vnet-name myVNet --name myBackendSubnet --nat-gateway myNATgateway
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus
{
  "addressPrefix": "10.1.0.0/24",
  "delegations": [],
  "etag": "W/\"d6c1e059-9bb8-4d5d-9967-6b68353d1d94\"",
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/virtualNetworks/myVNet/subnets/myBackendSubnet",
  "ipConfigurations": [
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/networkInterfaces/MYNICVM1/ipConfigurations/IPC0NFIG1",
      "resourceGroup": "CREATEPUBLBQS-RG"
    },
    {
      "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/networkInterfaces/MYNICVM2/ipConfigurations/IPC0NFIG1",
      "resourceGroup": "CREATEPUBLBQS-RG"
    }
  ],
  "name": "myBackendSubnet",
  "natGateway": {
    "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Network/natGateways/myNATgateway",
    "resourceGroup": "CreatePubLBQS-rg"
  },
  "privateEndpointNetworkPolicies": "Disabled",
  "privateLinkServiceNetworkPolicies": "Enabled",
  "provisioningState": "Succeeded",
  "resourceGroup": "CreatePubLBQS-rg",
  "type": "Microsoft.Network/virtualNetworks/subnets"
}
vivek [ ~ ]$ 
vivek [ ~ ]$ array=(myVM1 myVM2)
for vm in ${array[@]}
do
  az vm extension set --publisher Microsoft.Compute --version 1.8 --name CustomScriptExtension --vm-name $vm --resource-group CreatePubLBQS-rg --settings '{"commandToExecute":"powershell Add-WindowsFeature Web-Server; powershell Add-Content -Path \"C:\\inetpub\\wwwroot\\Default.htm\" -Value $(env:computername)"}'
done
```

```
vivek [ ~ ]$ array=(myVM1 myVM2)
for vm in ${array[@]}
do
  az vm extension set --publisher Microsoft.Compute --version 1.8 --name CustomScriptExtension --vm-name $vm --resource-group CreatePubLBQS-rg --settings '{"commandToExecute":"powershell Add-WindowsFeature Web-Server; powershell Add-Content -Path \"C:\\inetpub\\wwwroot\\Default.html\" -Value $(env:computername)"}'
done
{
  "autoUpgradeMinorVersion": true,
  "enableAutomaticUpgrade": null,
  "forceUpdateTag": null,
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Compute/virtualMachines/myVM1/extensions/CustomScriptExtensi
on",
  "instanceView": null,
  "location": "eastus",
  "name": "CustomScriptExtension",
  "protectedSettings": null,
  "protectedSettingsFromKeyVault": null,
  "provisionAfterExtensions": null,
  "provisioningState": "Succeeded",
  "publisher": "Microsoft.Compute",
  "resourceGroup": "CreatePubLBQS-rg",
  "settings": {
    "commandToExecute": "powershell Add-WindowsFeature Web-Server; powershell Add-Content -Path \"C:\\inetpub\\wwwroot\\Default.htm\" -Value $(env:computername)"
  },
  "suppressFailure": null,
  "tags": null,
  "type": "Microsoft.Compute/virtualMachines/extensions",
  "typeHandlerVersion": "1.8",
  "typePropertiesType": "CustomScriptExtension"
}

{
  "autoUpgradeMinorVersion": true,
  "enableAutomaticUpgrade": null,
  "forceUpdateTag": null,
  "id": "/subscriptions/ee9ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Compute/virtualMachines/myVM2/extensions/CustomScriptExtensi
on",
  "instanceView": null,
```

```
Resource groups - Microsoft Azure | Quickstart Create a public load bal... + portal.azure.com/?feature.msa&js=true#view/HubsExtension/BrowseResourceGroups

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

Switch to PowerShell Restart Manage files New session Editor Web preview Settings Help

"commandToExecute": "powershell Add-WindowsFeature Web-Server; powershell Add-Content -Path \"C:\\inetpub\\wwwroot\\Default.htm\" -Value $(env:computername)"  
},  
"suppressFailures": null,  
"tags": null,  
"type": "Microsoft.Compute/virtualMachines/extensions",  
"typeHandlerVersion": "1.8",  
"typePropertiesType": "CustomScriptExtension"  
  
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"enableAutomaticUpgrade": null,  
"forceUpdateTag": null,  
"id": "/subscriptions/e89ea131-d6f1-4e0b-baee-b293615685ae/resourceGroups/CreatePubLBQS-rg/providers/Microsoft.Compute/virtualMachines/myVM2/extensions/CustomScriptExtens  
ion",  
"instanceView": null,  
"location": "eastus",  
"name": "CustomScriptExtension",  
"protectedSettings": null,  
"protectedSettingsFromKeyVault": null,  
"provisioningState": "Succeeded",  
"provisioningState": "Succeeded",  
"publisher": "Microsoft.Compute",  
"resourceGroup": "CreatePubLBQS-rg",  
"settings": {  
    "commandToExecute": "powershell Add-WindowsFeature Web-Server; powershell Add-Content -Path \"C:\\inetpub\\wwwroot\\Default.htm\" -Value $(env:computername)"  
},  
"suppressFailures": null,  
"tags": null,  
"type": "Microsoft.Compute/virtualMachines/extensions",  
"typeHandlerVersion": "1.8",  
"typePropertiesType": "CustomScriptExtension"  
}  
vivek [ ~ ]$  
vivek [ ~ ]$ az network public-ip show --resource-group CreatePubLBQS-rg --name myPublicIP --query ipAddress --output tsv  
Command group 'az network' is in preview and under development. Reference and support levels: https://aka.ms/CLI_refstatus  
4.157.172.31  
vivek [ ~ ]$
```

```
vivek [ ~ 18
vivek [ ~ 18 az network public-ip show --resource-group Cr
Command group 'ac network' is in preview and under develop
4.157.172.31
vivek [ ~ 18 ]
```

