

## 1. Deploy the custom image with any application installed

Creating the vm giving availability set

Azure/Assignment-3.pdf at Create new - Microsoft Azure Assesments - Google Drive satzisa/html5-speedtest - Understanding CIDR Notation Home > Virtual machines > Create a virtual machine

Instance details

Virtual machine name \* (new) vm3

Region \* (US) West US 2

Availability options Availability set

Availability set \* (new) availableset1

Image \* Windows Server 2016 Datacenter - Gen1

Azure Spot instance No

Size \* Standard\_DS1\_v2 - 1 vcpu, 3.5 GiB memory (₹5,645.28/month)

Administrator account

Create new

Name \* availableset1

Fault domains 2

Update domains 5

Use managed disks Yes (Aligned)

Review + create < Previous Next : Disks >

Type here to search

OK

12:51 26-08-2020

Azure/Assignment-3.pdf at Create a virtual machine - Microsoft Azure Assesments - Google Drive satzisa/html5-speedtest - Understanding CIDR Notation Home > Virtual machines > Create a virtual machine

Validation passed

Basics

Subscription	Free Trial
Resource group	(new) vm3
Virtual machine name	vm3
Region	West US 2
Availability options	Availability set
Availability set	(new) availableset1
Image	Windows Server 2016 Datacenter - Gen1
Size	Standard DS1 v2 (1 vcpu, 3.5 GiB memory)
Username	prasanna
Public inbound ports	RDP
Already have a Windows license?	No
Azure Spot	No

Create < Previous Next > Download a template for automation

Type here to search

12:54 26-08-2020

**Validation passed**

**Disks**

OS disk type	Standard HDD
Use managed disks	Yes
Use ephemeral OS disk	No

**Networking**

Virtual network	(new) vm3-vnet
Subnet	(new) default (10.2.3.0/24)
Public IP	(new) vm3-ip
Accelerated networking	Off
Place this virtual machine behind an existing load balancing solution?	No

**Management**

**Create** < Previous Next > Download a template for automation

Type here to search

12:54 26-08-2020 ENG

**Validation passed**

**Management**

Boot diagnostics	On
OS guest diagnostics	Off
Azure Security Center	Basic (free)
Diagnostics storage account	(new) vm3diag440
System assigned managed identity	Off
Auto-shutdown	Off
Backup	Disabled

**Advanced**

Extensions	None
Cloud init	No
Proximity placement group	None

**Create** < Previous Next > Download a template for automation

Type here to search

12:54 26-08-2020 ENG

Go to the server manager-> local server->IE enhanced security configuration put it turn off both users and administrators(why because means if it turn on the internet explorer wont work)

## Creating another vm

Validation passed

**Basics**

Subscription	Free Trial
Resource group	(new) vm4
Virtual machine name	vm4
Region	West US 2
Availability options	Availability set
Availability set	(new) available2
Image	vm3-image-20200826161257 - Gen1
Size	Standard DS1 v2 (1 vcpu, 3.5 GiB memory)
Username	prasanna
Public inbound ports	RDP
Already have a Windows license?	No
Azure Spot	No

**Create** < Previous Next > Download a template for automation

## Using the above vm to create an image

Search (Ctrl+)

Deployment

Overview

We'd love your feedback! →

Your deployment is complete

Deployment name: CreateVm-vm3-image-20200826161257-20200826161646 | Start time: 8/26/2020, 4:20:11 PM | Subscription: Free Trial | Resource group: vm4

Deployment details (Download)

Next steps

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

Go to resource Create another VM

**Security Center**  
Secure your apps and infrast... Go to Azure security center

Free Microsoft tutorials  
Start learning today >

Work with an expert  
Azure experts are service pr... who can help manage your ... and be your first line of sup... Find an Azure expert >

Azure/Assignment-1 x vm4 - Microsoft Azure x Assessments - Google x satzisa/html5-speed x Drafts (32) - prasanna x azure-assessment1/ x

portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vm4/providers...

Microsoft Azure Search resources, services, and docs (G+) prasannadprasanna@g... DEFAULT DIRECTORY

Home > Virtual machines >

vm4 Virtual machine

Search (Ctrl+ /)

Connect Start Restart Stop Capture Delete Refresh Share to mobile

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

Essentials

Resource group (change) vm4

Status Running

Location West US 2

Subscription (change) Free Trial

Subscription ID b65e28ef-56f2-443e-ba99-ed54ffe6075a

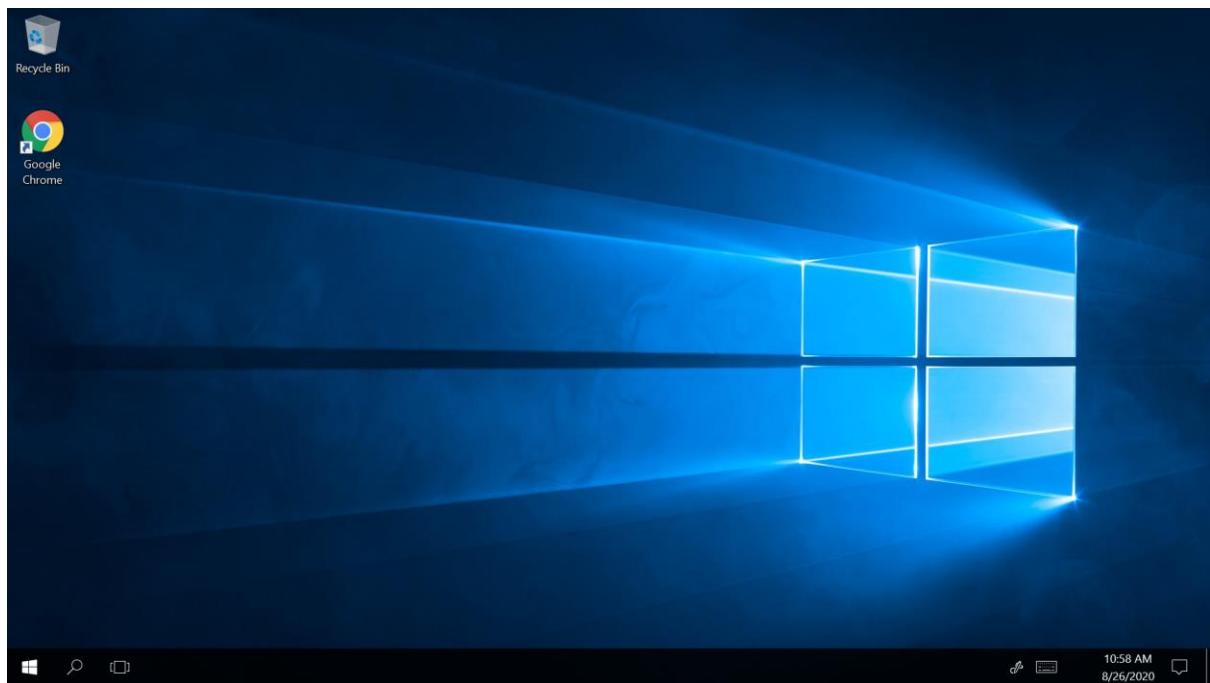
Tags (change) Click here to add tags

Properties Monitoring Capabilities Recommendations Tutorials

Assessment1.pdf

Type here to search

Show all



2. Create a two networks in East Asia and west us and peer the network using Network Peering and access the VM using private from one location to other location

## 1<sup>st</sup> virtual network creation:

The screenshot shows the Azure portal interface with the URL <https://portal.azure.com/?quickstart=True#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/Microsoft.Network/virtualNetworks/vnet1>. The page displays the details for the virtual network 'vnet1'. Key information includes:

- Resource group:** vnet1
- Location:** West US
- Subscription:** Free Trial
- Address space:** 10.0.0.0/16, 1 more
- DNS servers:** Azure provided DNS service

The left sidebar lists various management options like Activity log, Access control (IAM), Tags, and Diagnose and solve problems. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Mail, Edge, Google Chrome, and Word.

The screenshot shows the 'Create virtual network' wizard in the Azure portal. The URL is <https://portal.azure.com/?quickstart=True#create/Microsoft.VirtualNetwork>. The validation status is shown as 'Validation passed'. The configuration steps are:

- Basics:**
  - Subscription: Free Trial
  - Resource group: (new) vnet2
  - Name: vnet2
  - Region: East Asia
- IP addresses:**
  - Address space: 10.1.0.0/16, 192.168.3.0/29
  - Subnet: default (10.1.0.0/24)
- Tags:** None

At the bottom, there are 'Create' and 'Next >' buttons, along with a link to 'Download a template for automation'. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Mail, Edge, Google Chrome, and Word.

## 2<sup>nd</sup> virtual network creation:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'atm card is credit or debit card -' and 'vnet2 - Microsoft Azure'. The main content area is titled 'Subnet extension in Azure | Mic...' and shows the 'vnet2' resource group details. The 'Overview' tab is selected, displaying information such as Address space (10.1.0.0/16, 1 more), Location (East Asia), Subscription (Free Trial), and DNS servers (Azure provided DNS service). The left sidebar lists various settings like Activity log, Access control (IAM), Tags, and Connected devices. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Mail, Edge, Google Chrome, and Word, along with system status indicators.

## Peering creation:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'atm card is credit or debit card -' and 'peering1 - Microsoft Azure'. The main content area is titled 'Plan Azure virtual networks | Mic...' and shows the 'peering1' configuration for 'vnet1' to 'vnet2'. The 'Peering1' tab is selected, showing the peer name 'peering1', Peering status (Connected), Provisioning state (Succeeded), and Peer details (Address space 10.1.0.0/16, 1 more). The 'Remote Vnet Id' field contains the URL '/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet2/providers/Microsoft...'. The 'Virtual network' dropdown is set to 'vnet2'. The bottom of the screen shows the Windows taskbar with icons for File Explorer, Mail, Edge, Google Chrome, and Word, along with system status indicators.

The screenshot shows the Azure portal interface with the URL [/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/Microsoft.Network/virtualNetworkPeerings/peering1](https://portal.azure.com/#/quickstart=True#prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/Microsoft.Network/virtualNetworkPeerings/peering1). The page title is "peering1 - Microsoft Azure". The configuration section for "Virtual network" shows "Allow virtual network access from vnet1 to vnet2" set to "Enabled". Other settings like "Allow forwarded traffic from vnet2 to vnet1" and "Allow gateway transit" are disabled. The status bar at the bottom indicates the date as 25-08-2020.

### 3. Create a Point to site VPN in west us location and try connect from your location laptop to Azure datacenter

Selecting the anyone vnet and connect to point to site vpn

The screenshot shows the Azure portal interface with the URL [/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/Microsoft.Network/virtualNetworks/vnet1](https://portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/Microsoft.Network/virtualNetworks/vnet1). The page title is "vnet1 - Microsoft Azure". The left sidebar shows "Overview", "Activity log", "Access control (IAM)", "Tags", and "Diagnose and solve problems". The main content area displays "Essentials" information: Resource group (vnet1), Address space (10.0.0.0/16), Location (West US), DNS servers (Azure provided DNS service), Subscription (Free Trial), Subscription ID (b65e28ef-56f2-443e-ba99-ed54ffe6075a), and Tags (Click here to add tags). The "Connected devices" section shows "No results.". The status bar at the bottom indicates the date as 26-08-2020.

## Deletion of connected peering

The screenshot shows the Azure portal interface. The left sidebar is titled 'Virtual networks' and lists three resources: 'vm1-vnet', 'vnet1', and 'vnet2'. The 'vnet1' item is selected. The main content area is titled 'vnet1 | Peerings' and shows a table with one row: 'No results.' A search bar at the top says 'Search (Ctrl+/'.

Name	Peering status	Peer	Gateway transit
No results.			

At the bottom of the screen, there is a taskbar with several icons and a system tray showing the date and time as 26-08-2020 09:46 AM.

## Creating gateway

The screenshot shows the Azure portal interface. The left sidebar is titled 'Virtual networks' and shows 'vnet1'. The main content area is titled 'GatewaySubnet' under 'vnet1'. A progress message 'Saving subnet' is displayed. The configuration form includes fields for 'Address range (CIDR block)' (set to '10.0.3.0/24'), 'Available addresses' (set to '251'), 'NAT gateway' (set to 'None'), and 'Network security group' (set to 'None').

Address range (CIDR block) *
10.0.3.0/24

At the bottom of the screen, there is a taskbar with several icons and a system tray showing the date and time as 26-08-2020 09:48 AM.

In the search bar I search the virtual network gateway and creating the point to site vpn

Validation passed

Basics Tags Review + create

Subscription: Free Trial  
Resource group: vnet1  
Name: pointtositevpn  
Region: West US  
SKU: VpnGw1  
Virtual network: vnet1  
Subnet: GatewaySubnet (10.0.3.0/24)  
Gateway type: Vpn

Create Previous Next Download a template for automation

Validation passed

SKU: VpnGw1  
Virtual network: vnet1  
Subnet: GatewaySubnet (10.0.3.0/24)  
Gateway type: Vpn  
VPN type: RouteBased  
Enable active-active mode: Disabled  
Configure BGP ASN: Disabled  
Public IP address: vpn-ipaddressss

Tags: None

Create Previous Next Download a template for automation

Azure/Assignment-3.pdf at mast... ▾ pointtositevpn - Microsoft Azure ▾ my internet speed - Google Search ▾ Assesments - Google Drive ▾ +

portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/...

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

Home > Microsoft.VirtualNetworkGateway-20200826094949 >

**pointtositevpn** Virtual network gateway

Search (Ctrl+ /)

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

Settings Configuration Connections User VPN configuration Properties Locks

Resource group (change) vnet1 Location West US Subscription (change) Free Trial Subscription ID b65e28ef-56f2-443e-ba99-ed54ffe6075a

SKU VpnGw1 Gateway type VPN VPN type Route-based Virtual network vnet1 Public IP address 104.42.192.229 (vpn-ipaddresss)

Tags (change) Click here to add tags

Health check Perform a quick health check to detect possible gateway issues

Documentation View guidance on helpful topics related to VPN gateway

GMT20200825-09...m4a ▾ GMT20200825-0...mp4 ▾ GMT20200825-07...m4a ▾ GMT20200825-0...mp4 ▾ Show all

Type here to search

Created the point to site vpn to west us

Azure/Assignment-3.pdf at mast... ▾ pointtositevpn - Microsoft Azure ▾ my internet speed - Google Search ▾ Assesments - Google Drive ▾ +

portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/...

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

Home > Microsoft.VirtualNetworkGateway-20200826094949 > pointtositevpn

**pointtositevpn** | User VPN configuration Virtual network gateway

Search (Ctrl+ /)

tags

Diagnose and solve problems

Settings Configuration Connections User VPN configuration Properties Locks Export template

Monitoring Logs

Point-to-site is not configured

Configure now

Save Discard Download VPN client

GMT20200825-09...m4a ▾ GMT20200825-0...mp4 ▾ GMT20200825-07...m4a ▾ GMT20200825-0...mp4 ▾ Show all

Type here to search

Configure now

## Creating certificate

```

Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
File Explorer Taskbar Run Task View Start Taskbar
certificateprogram.ps1
1 $cert = New-SelfSignedCertificate -Type Custom -KeySpec Signature -Subject "CN=PRASANNAROOT" -KeyExportPolicy Exportable
2 New-SelfSignedCertificate -Type Custom -DnsName PRASANNACLIENT -KeySpec Signature -Subject "CN=PRASANNACLIENT" -KeyExportPolicy Exportable
3

PS C:\windows\system32> $cert = New-SelfSignedCertificate -Type Custom -KeySpec Signature -Subject "CN=PRASANNAROOT" -KeyExportPolicy Exportable
PS C:\windows\system32> New-SelfSignedCertificate -Type Custom -DnsName PRASANNACLIENT -KeySpec Signature -Subject "CN=PRASANNACLIENT" -KeyExportPolicy Exportable

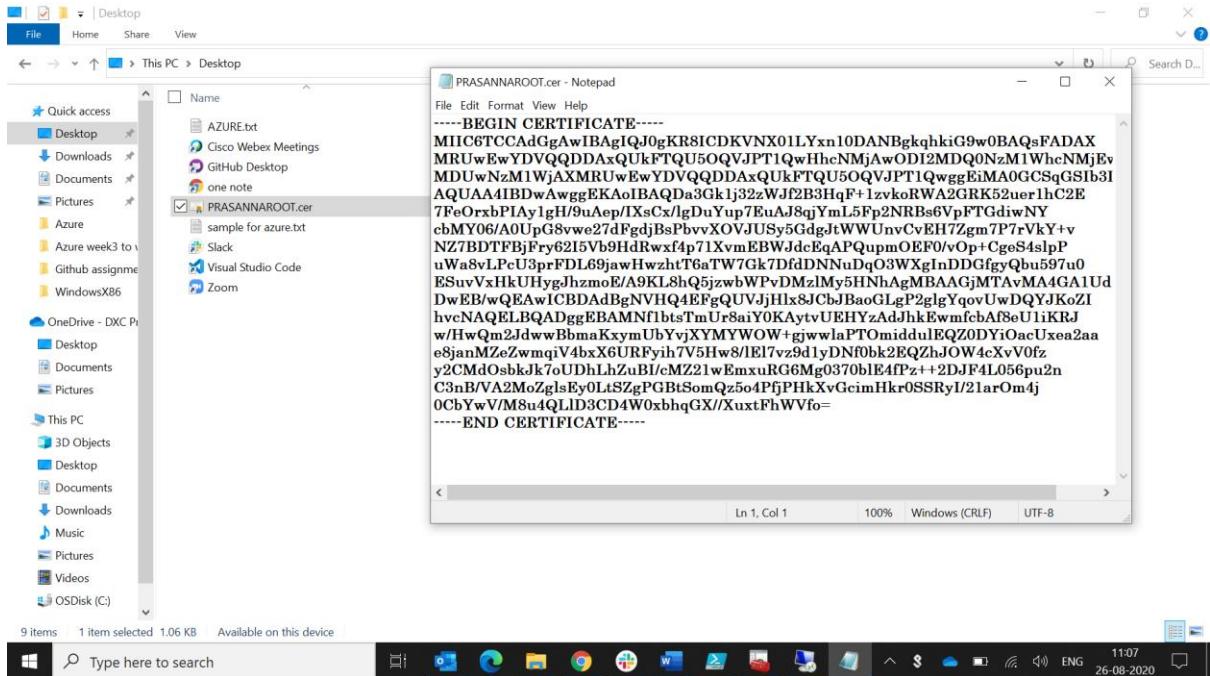
PSParentPath: Microsoft.PowerShell.Security\Certificate::CurrentUser\My
Thumbprint Subject
----- CN=PRASANNACLIENT

PS C:\windows\system32>

```

GO TO THE MMC IN RUN TO GET CONSOLE PAGE

Select the certificates and Extract the files



## Copy and paste the rootcertificate

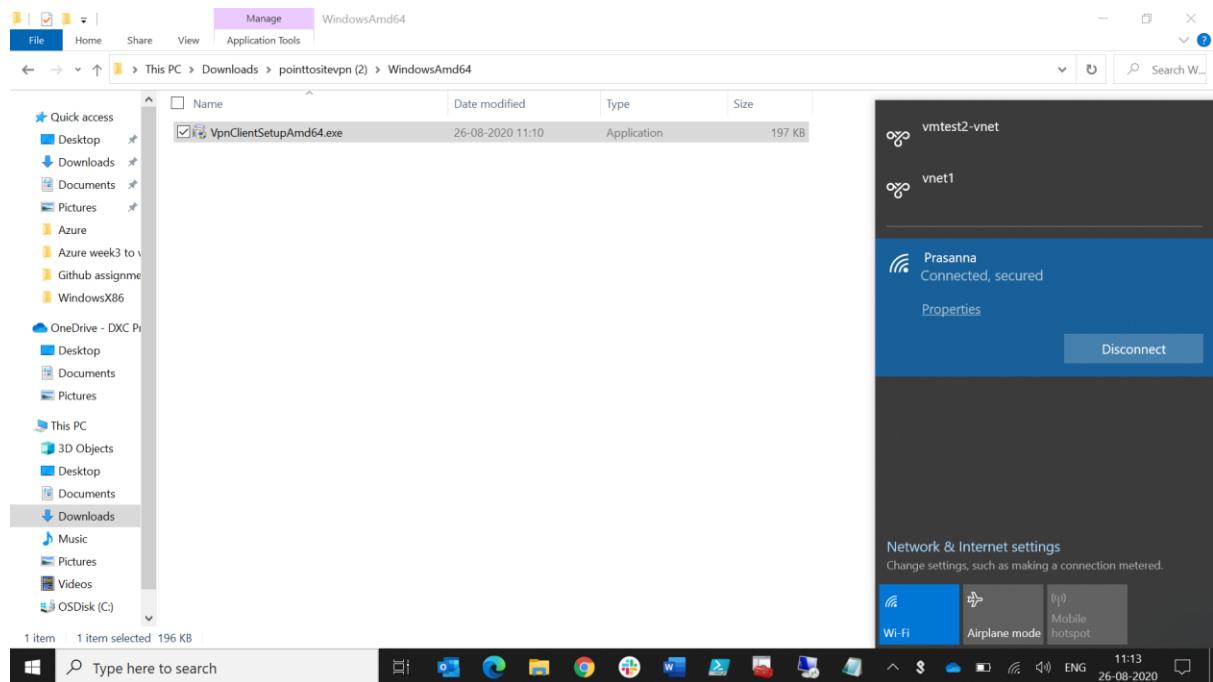
The screenshot shows the Microsoft Azure portal with the URL [portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/...](https://portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/vnet1/providers/). The user is signed in as prasannadprasanna@... .

In the left sidebar, under "User VPN configuration", the "Root certificates" section is selected. A table lists a single certificate entry:

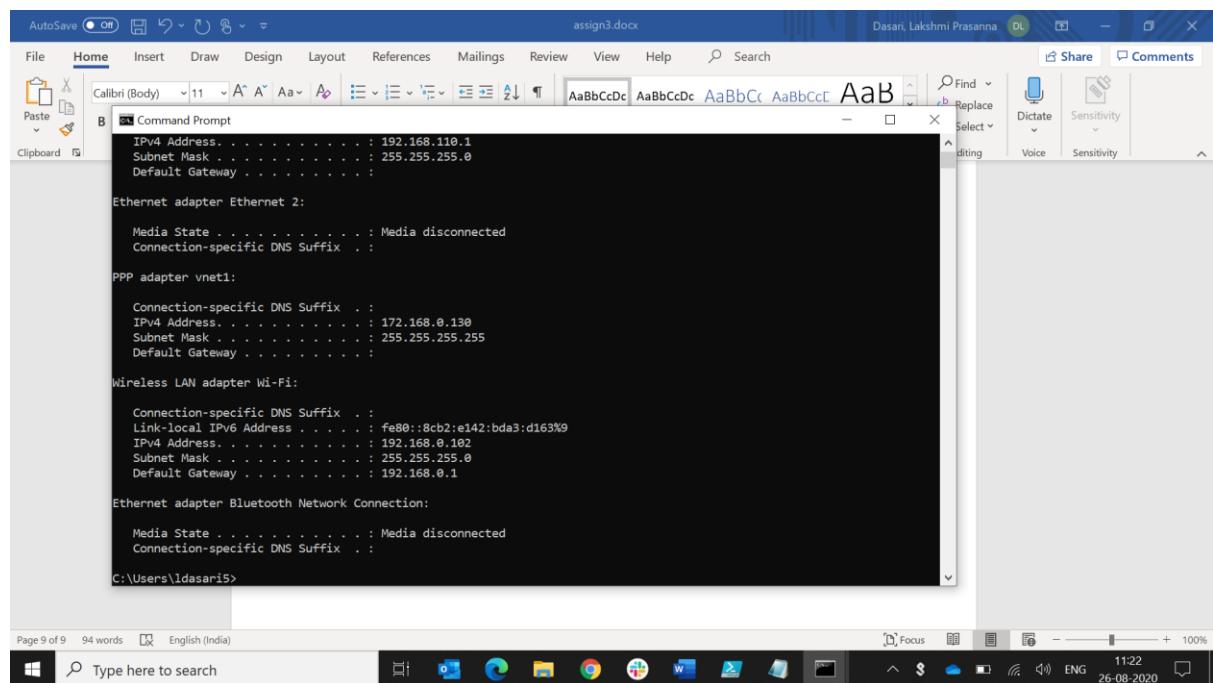
Name	Public certificate data
PRASANNAROOT	<pre>-----BEGIN CERTIFICATE----- MIIC6TCCAdGgAwIBAgIQJ0gKR8ICDKVNX01LYxn10DANBgkqhkiG9w0BAQsFADAX MRUwBwYDVQQDDAxqQUkFTQU5OQVJPT1QwHhcNMjAwODI2MDQ0NzM1WhcNMjEv MDUwNzM1WjAXMRUwBwYDVQQDDAxqQUkFTQU5OQVJPT1QwggEiMA0GCSqS1b3I AQUAAIIBDwAwggEKAoIBAQDa3Gk1j32xWJf2B3hF1zvkoRWAA2GRK52uerlhc2E 7FeOrxbPIaylgH9uAep/IXsCx/lgDuYup/TEuAj8qjYm1.5Fp2NRBs6VpFTGdiwNY cbMY06/A0UpG8we27dFgdjBsPbvvXOVJUSyGdgstWWUnvCvEH7Zgm7P7rVKY+v NZ7BDTFBjFry62i5Vb9HdRwx4p71XvmEBWJdcEqAPQupmOEF0/vOp+CgeS4slpP uWa8vLPcU3prFDL69awHwzhtT6aTW7Gk7DfdDNuBqO3WXgInDDGfgyQbu597u0 ESuvVxHkUHygJhzmoe/A9KL8hQ5jzwBWPvDMzIMy5HNhAgMBAAGjMTAvMA4GA1Ud DwEB/wQEAwIBBDAgBgNVHQ4EFgQUVJjHlxSJCbaoGLgP2glgYqvUwDQYJKoZI hvcNAQELBQAQDggEBAMNF1btsTmUr8aiY0KAytvUEHYzAdJhkEwmfcba18eU1iKRJ w/HwQm2JdwwBbmaKxymUbYvJXYMYWOW+gwrlaPTOmidduIEQZODYiOacUxeaa2aa e8janMZeZwmqiV4bxX6URFyih7v5Hw8/El7vz9d1yDNf0bk2EQZhJOW4xV0fz y2CMdOsbkJk7oUDhLhzubI/cMZ2lwEmxuRG6Mg0370b1E4Pz++2DJF4L056pu2n C3nB/VA2MoZglsEy0LtSzgPGbtSomQz5o4PfjPHkXvGcimHkr0SSRyl/21arOm4j 0CbYwV/M8u4QLD3CD4W0xbhqGX//XuxtFhWVfo= -----END CERTIFICATE-----</pre>

The desktop taskbar at the bottom shows several pinned icons and the date/time as 26-08-2020.

Save the file and download the vpn client. Next open that file in notepad and install the amd64 then the vpn is seen in wifi place



Created vpn



#### 4. Create a two web applications and put the apps under traffic manager with Priority routing method

##### Creating web application

The screenshot shows the Microsoft Azure portal interface. The user is in the 'Create Web App' wizard, specifically on the 'Review + create' step. The application type is selected as 'Web App by Microsoft'. The configuration details are as follows:

Setting	Value
Subscription	b65e28ef-56f2-443e-ba99-ed54fe6075a
Resource Group	app1
Name	testappdx
Publish	Docker Container
Image:Tag	satzisa/html5-speedtest
Server URL	<a href="https://index.docker.io">https://index.docker.io</a>

Below the configuration, there is a section for the 'App Service Plan (New)'. The 'Create' button is highlighted. At the bottom of the page, there is a search bar and a taskbar.

The screenshot shows the Microsoft Azure portal interface. The user is in the 'Create Web App' wizard, specifically on the 'Review + create' step. The application type is selected as 'Web App by Microsoft'. The configuration details are as follows:

Setting	Value
Image:Tag	satzisa/html5-speedtest
Server URL	<a href="https://index.docker.io">https://index.docker.io</a>

Below the configuration, there is a section for the 'App Service Plan (New)'. The configuration includes:

Setting	Value
Name	ASP-app1-8d0b
Operating System	Linux
Region	West US
SKU	Premium V2
Size	Small
ACU	210 total ACU
Memory	3.5 GB memory

There is also a 'Monitoring' section with the 'Application Insights' setting set to 'Not enabled'. At the bottom of the page, there is a search bar and a taskbar.

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'testappdxc - Microsoft Azure' and 'Azure/Assignment-3.pdf at mast...'. The search bar says 'Search resources, services, and docs (G+/-)'. The user 'prasannadprasanna@g...' is logged in under 'DEFAULT DIRECTORY'. The main content area displays the 'testappdxc' App Service overview. On the left, a sidebar lists 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', 'Security', 'Events (preview)', 'Deployment' (with 'Quickstart', 'Deployment credentials', 'Deployment slots', and 'Deployment Center'), and 'Settings'. The 'Essentials' section on the right provides details: Resource group (change) 'app1', Status 'Running', Location 'West US', Subscription 'Free Trial', Subscription ID 'b65e28ef-56f2-443e-ba99-ed54ffe6075a', and Tags. It also features links for 'Diagnose and solve problems' and 'App Service Advisor'. The bottom taskbar shows icons for File Explorer, Task View, Edge, Google Chrome, File Explorer, File Explorer, and Word, along with system status indicators like battery level and signal strength.

The screenshot shows the Microsoft Azure portal interface with the 'HTML5 Speedtest' page open. The top navigation bar includes tabs for 'testappdxc - Microsoft Azure' and 'Azure/Assignment-3.pdf at mast...'. The search bar says 'Search resources, services, and docs (G+/-)'. The main content area displays the 'HTML5 Speedtest' interface. It features four large circular performance indicators: 'Download' (0.00 Mbps), 'Upload' (0.00 Mbps), 'Ping' (0.00 ms), and 'Jitter' (0.00 ms). A 'Start' button is located above the download and upload indicators. Below the indicators, there is a field labeled 'IP Address:' and a link 'Source code'. The bottom taskbar shows icons for File Explorer, Task View, Edge, Google Chrome, File Explorer, File Explorer, and Word, along with system status indicators like battery level and signal strength.

I created another web application

**Create Web App**

**Review + create**

**Web App** by Microsoft

**Details**

Subscription: b65e28ef-56f2-443e-ba99-ed54ffe6075a  
Resource Group: app2  
Name: testnetapp2  
Publish: Docker Container  
Image:Tag: ilemonrain/html5-speedtest  
Server URL: https://index.docker.io

**App Service Plan (New)**

**Create** < Previous Next > Download a template for automation

**Create Web App**

**Image:Tag**: ilemonrain/html5-speedtest  
**Server URL**: https://index.docker.io

**App Service Plan (New)**

Name: ASP-app2-b5f2  
Operating System: Linux  
Region: East US 2  
SKU: Premium V2  
Size: Small  
ACU: 210 total ACU  
Memory: 3.5 GB memory

**Monitoring**

Application Insights: Not enabled

**Create** < Previous Next > Download a template for automation

Screenshot of Microsoft Azure portal showing the testnetapp2 App Service configuration. The URL is https://testnetapp2.azurewebsites.net.

**Essentials**

- Resource group (change) app2
- Status: Running
- Location: East US 2
- Subscription (change) Free Trial
- Subscription ID: b65e28ef-56f2-443e-ba99-ed54ffe6075a
- Tags: Click here to add tags

**Diagnose and solve problems**  
Our self-service diagnostic and troubleshooting experience helps you identify and resolve issues with your web app.

**App Service Advisor**  
App Service Advisor provides insights for improving app experience on the App Service platform. Recommendations are sorted by freshness, priority and impact to your app.

Deployment:

- Quickstart
- Deployment credentials
- Deployment slots
- Deployment Center

Settings:

Windows taskbar at the bottom showing various icons and the date/time: 27-08-2020 12:29

Screenshot of the Azure portal showing the HTML5 Speedtest page for the testnetapp2 website.

## HTML5 Speedtest

开始测试

下载速度 RX: 0.00 Mbps

上传速度 TX: 0.00 Mbps

平均延迟 Ping: 0.00 ms

网络抖动 Jitter: 0.00 ms

Windows taskbar at the bottom showing various icons and the date/time: 27-08-2020 12:30

So I created two web applications .

The screenshot shows the Microsoft Azure portal interface. The user is creating a new Traffic Manager profile. The 'Name' field is set to 'traffic2'. The 'Routing method' is set to 'Priority'. The 'Subscription' is 'Free Trial'. The 'Resource group' is '(New) traffic2'. The 'Resource group location' is 'East US 2'. The status bar at the bottom indicates 'Validating...'.

**Create Traffic Manager profile**

Name \*  
traffic2  
.trafficmanager.net

Routing method  
Priority

Subscription \*  
Free Trial

Resource group \*  
(New) traffic2  
Create new

Resource group location \* ⓘ  
East US 2

Validating... Automation options

The screenshot shows the details of the 'traffic2' Traffic Manager profile. The profile is enabled and has a DNS name of 'http://traffic2.trafficmanager.net'. It is using the 'Priority' routing method. There are no endpoints listed in the table below.

**traffic2** ⚡

Traffic Manager profile

Search (Ctrl+)/

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Real user measurements

Traffic view

Endpoints

Properties

Locks

Export template

Enable profile

Disable profile

Refresh

Move

Delete profile

Essentials

Resource group (change)  
traffic2

Status  
Enabled

Subscription (change)  
Free Trial

Subscription ID  
b65e28ef-56f2-443e-ba99-ed54ffe6075a

Tags (change)  
Click here to add tags

Search endpoints

Name	Status	Monitor status	Type	Priority
No results.				

**traffic2 | Endpoints**

Search (Ctrl+)/

+ Add ⏪ Refresh

Name ↑↓	Status ↑↓	Monitor status ↑↓	Type ↑↓	Priority ↑↓
endpoint1	Enabled	Checking endpoint	Azure endpoint	1
endpoint2	Enabled	Checking endpoint	Azure endpoint	2

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Real user measurements

Traffic view

Endpoints

Properties

Locks

Export template

Type here to search

**traffic2**

Search (Ctrl+)/

Enable profile ⏪ Disable profile ⏪ Refresh ⏪ Move ⏪ Delete profile

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Real user measurements

Traffic view

Endpoints

Properties

Locks

Export template

Resource group (change)  
traffic2

Status  
Enabled

Subscription (change)  
Free Trial

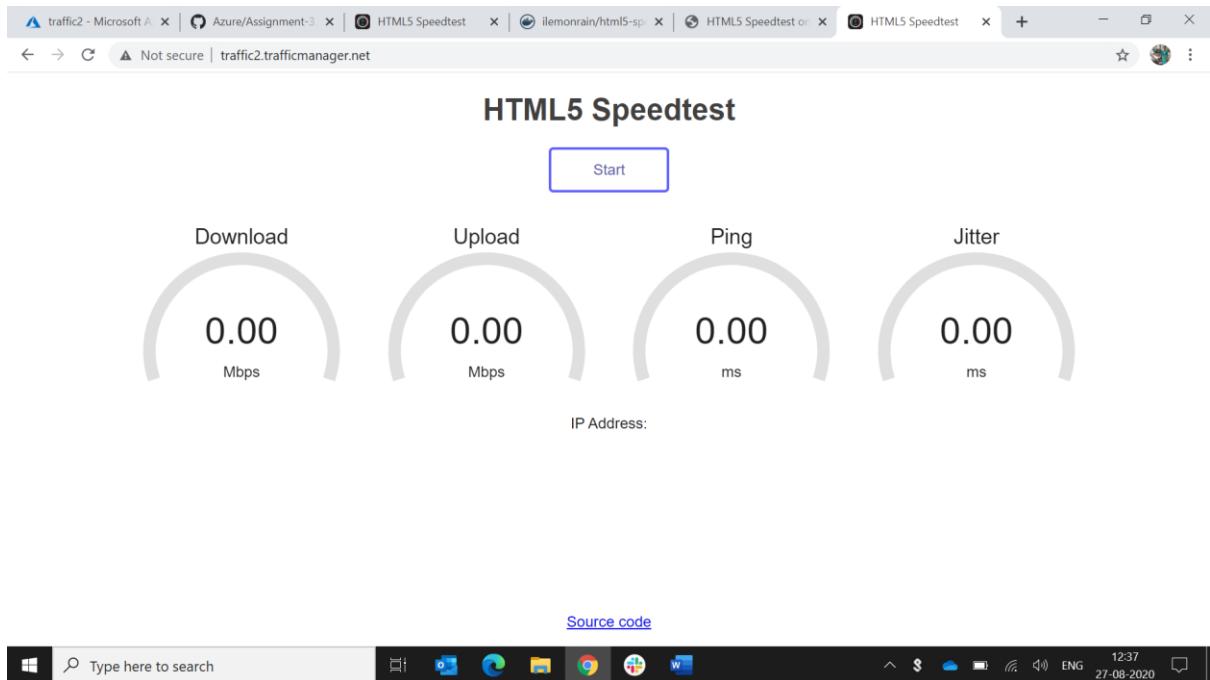
Subscription ID  
b65e28ef-56f2-443e-ba99-ed54ffe6075a

Tags (change)  
Click here to add tags

Name ↑↓	Status ↑↓	Monitor status ↑↓	Type ↑↓	Priority ↑↓
endpoint1	Enabled	Online	Azure endpoint	1
endpoint2	Enabled	Checking endpoint	Azure endpoint	2

Type here to search

I copy the traffic url and paste it in chrome I get the first endpoint because I gave first priority to endpoint 1



After disabling the endpoint1 it shows the 2<sup>nd</sup> priority that means app2

**Traffic Manager pr...**

Default Directory

+ Add ⚙ Manage view ...

Filter by name...

Name ↑

traffic2

trafficapp1

Page 1 of 1

**traffic2**

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Real user measurements

Traffic view

Endpoints

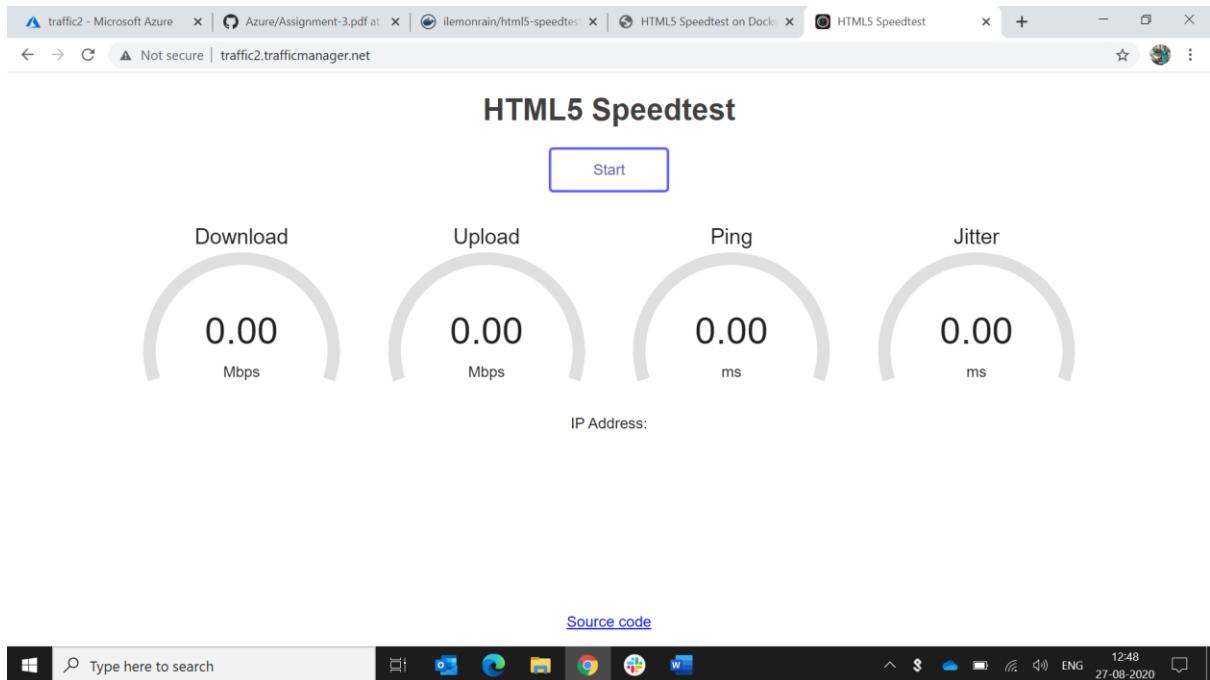
Properties

Locks

Export template

Search endpoints

Name	Status	Monitor status	Type	Priority
endpoint1	Disabled	Disabled	Azure endpoint	1
endpoint2	Enabled	Online	Azure endpoint	2



5. Create a Backup solution for the Vm and assign a daily policy to the VM with 10 days retention period

Create Recovery Services vault

\* Basics   Tags   Review + create

Summary

Basics

Subscription	Free Trial
Resource group	recoveryservicevault1
Vault name	recoveryservicevault1
Region	East US

**Note:** Default Backup configuration for Storage Replication Type is set to Geo-redundant (GRS). Default Security settings for Soft Delete is enabled. After creating vault, it is highly recommended that you review default vault properties before protecting items. Learn more.

**Create**   Previous: Tags   Download a template for automation

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Azure/Assignment-3.pdf at master' and 'recoveryservicevault1 - Microsoft'. The main header bar has 'Microsoft Azure' and 'Upgrade' buttons, along with a search bar and user information for 'prasannadprasanna@...'.

The main content area displays the 'recoveryservicevault1' Recovery Services vault page. The left sidebar contains links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings (Identity, Private endpoint connections, Properties, Locks, Export template), Getting started, and Backup.

The central pane shows the 'Overview' tab under the 'Essentials' section. It includes a 'What's new' feed with several items about SAP HANA databases, Azure File shares snapshot management, Azure Backup support for large disks, and more. Below this is a 'Backup' section with a 'Type here to search' bar and a toolbar with icons for Backups, Replication, Delete, and Refresh.

The bottom status bar shows system information: 13:09, 27-08-2020, ENG, and a battery icon.

This screenshot shows the 'Backup policy' configuration page within the Azure portal. The top navigation bar and user information are identical to the previous screenshot.

The main content area is titled 'Backup policy' for 'recoveryservicevault1'. It includes sections for 'Policy' (with a 'Default' button and 'Create a new policy' link), 'BACKUP' (Frequency: Daily at 9:30 PM, Timezone: UTC+05:30 Chennai, Kolkata, ...), 'Instant Restore' (Retain instant recovery snapshot(s) for 2 days), 'RETENTION' (Retention range: At 9:30 PM For 15 Day(s)), and 'Retention' (checkbox for Retention of daily backup point).

The bottom status bar shows system information: 13:12, 27-08-2020, ENG, and a battery icon.

The screenshot shows the Microsoft Azure portal interface. The user is navigating through the 'Microsoft Recovery ServicesV2' section, specifically the 'recoveryservicevault1' resource group, to set up a 'Backup Goal'. The 'Backup' blade is open, displaying a table for selecting virtual machines. Under the 'Virtual Machines' section, 'vm2' is listed under 'Resource Group' 'vm2'. The 'OS Disk Only' checkbox is checked. A note below the table explains the 'OS Disk only backup' option, stating it backs up the OS disk only and excludes data disks. A large blue button at the bottom right says 'Enable Backup'.

The recovery service vault is created and backup the vm2

The screenshot shows the Microsoft Azure portal interface with the 'recoveryservicevault1' blade open. The left sidebar has 'Backup items' selected. The main area displays a table of backup management types and their item counts. The table data is as follows:

BACKUP MANAGEMENT TYPE	BACKUP ITEM COUNT
Azure Virtual Machine	1
SAP HANA in Azure VM	0
SQL in Azure VM	0
Azure Storage (Azure Files)	0
DPM	0
Azure Backup Server	0
Azure Backup Agent	0

Backup Items (Azure Virtual Machine)

Name	Resource Group	Backup Pre-Check	Last Backup Status	Latest restore point
vm2	vm2	Passed	Warning(Initial backup pending)	



The vm2 is backed up

vm2 - Microsoft Azure

Alerts and Jobs

View all Alerts (last 24 hours)	Backup Pre-Check	Last backup status	Summary
View all Jobs (last 24 hours)	Passed	Warning(Initial backup pending)	recoveryservicevault1 backuppolicy1 Oldest restore point -

Restore points

This list is filtered for last 30 days of restore points. To recover from restore point older than 30 days, click here.

Time	Consistency	Recovery Type
0	0	0

No restore points available.



## 6. Replicate the VM from west us to any location using failover

The screenshot shows two windows from the Microsoft Azure portal.

The top window is titled "recoveryservicevault1" and displays the "Overview" tab of a Recovery Services vault. It includes sections for Activity log, Access control (IAM), Tags, and Diagnose and solve problems. On the left, there's a navigation menu with options like Add, Edit columns, Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings (Identity, Private endpoint connections, Properties, Locks, Export template), Getting started, and Backup. The "Backup" tab is selected. A "What's new" section lists several Azure features related to backup and disaster recovery.

The bottom window is titled "Enable replication" and shows the "Source" configuration step. It has three steps listed: 1. Source (Azure, East US), 2. Virtual machines (Select), and 3. Settings (Configure). The "Source" step is currently active, showing fields for Source (set to Azure), Source location (set to West US), Azure virtual machine deployment model (set to Resource Manager), Source subscription (set to Free Trial), and Source resource group (empty). A checkbox for Disaster Recovery between Availability Zones is set to No. At the bottom are "Enable replication" and "OK" buttons.

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

Home > Recovery Services vaults > recoveryservicevault1 > Enable replication >

### Enable replication

recoveryservicevault1

1 Source Azure, West US

2 Virtual machines Select

3 Settings Configure

**Source**

recoveryservicevault1

Select your source environment  
West US

Azure virtual machine deployment model \* Resource Manager

Source subscription \* Free Trial

Source resource group \* vm1

Disaster Recovery between Availability Zones? No

Availability Zones Select

**OK**

Enable replication

Type here to search

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

Home > Recovery Services vaults > recoveryservicevault1 > Enable replication >

### Enable replication

recoveryservicevault1

1 Source Azure, West US

2 Virtual machines Select

3 Settings Configure

**Select virtual machines**

Unable to view / select your VMs? Click [here](#) to know why.

Filter items...

Name	Virtual network	Tags
vm1	vm1-vnet	

**OK**

Enable replication

← → 🔍 portal.azure.com/#@prasannadprasant@gmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ea99-ed54ffe6075a/resourceGroups/recoveryserviceva... ☆ 🌐 ⚙️

Microsoft Azure ⚙️ Upgrade Search resources, services, and docs (G+/-) 🗃 🔍 🎯 🛡️ ? 😊 prasannadprasant@gmail.onmicrosoft.com DEFAULT DIRECTORY

Home > Recovery Services vaults > recoveryservicevault1 >

### Enable replication

recoveryservicevault1

1 Source ✓  
Azure, West US

2 Virtual machines ✓  
1 Selected

3 Settings ✓  
Configured

**Enable replication**



← → 🔍 portal.azure.com/#@prasannadprasant@gmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ea99-ed54ffe6075a/resourceGroups/recoveryserviceva... ☆ 🌐 ⚙️

Microsoft Azure ⚙️ Search resources, services, and docs (G+/-) 🗃 🔍 🎯 🛡️ ? 😊 prasannadprasant@gmail.onmicrosoft.com DEFAULT DIRECTORY

Home > Recovery Services vaults > recoveryservicevault1

### Recovery Services ...

Default Directory

+ Add Edit columns ...

Filter by name...

Name ↑

 recoveryservicevault1 ...

 **recoveryservicevault1 | Replicated items**  
Recovery Services vault

Search (Ctrl+I)

Refresh + Replicate Columns Filter

**Replicated items**

You can run your machines on managed disks after a failover or migration from on-premises to Azure. Set the option to use managed disks in Replicated item -> Settings -> Compute and Network.

Last refreshed at: 8/27/2020, 3:36:16 PM

 Finished loading data from service.

Filter items...

Name	Replication Health	Status	Active location
vm1	Healthy	Protected	West US

MARSagentInstall...exe MARSagentInstall...exe Canceled

Show all



← → C portal.azure.com/#blade/Microsoft\_Azure\_RecoveryServices/ReplicationProtectedItemSettingsMenuBlade/overviewmenuItem/replicationProtectedItemId/%2FSubsc... ☆ : Microsoft Azure Search resources, services, and docs (G+) prasannadprasanna@g... DEFAULT DIRECTORY

Home > Recovery Services vaults > recoveryservicevault1 > vm1

Repaired items

Search (Ctrl+ /) Overview

General Properties Compute and Network Disks

Health and status

Replication Health	Healthy
Status	Protected
RPO	50 secs [As on 8/27/2020, 3:34:05 PM]

Failover readiness

Last successful Test Failover	Never performed
Configuration issues	No issues
Agent version	9.36.5690.1
Agent status	Healthy

Latest recovery points

Click above to see the latest recovery points.

Errors(0) Open in new page Events - Last 72 hours(0) Open in new page

No errors No events

← → C portal.azure.com/#blade/Microsoft\_Azure\_RecoveryServices/ReplicationProtectedItemSettingsMenuBlade/overviewmenuItem/replicationProtectedItemId/%2FSubsc... ☆ : Microsoft Azure Search resources, services, and docs (G+) prasannadprasanna@g... DEFAULT DIRECTORY

Home > Recovery Services vaults > recoveryservicevault1 > vm1 > Failover

vm1

Failover direction

From: West US (Zone null)

To: Central US (Zone null)

Recovery Point

Choose a recovery point

Latest processed (low RTO) (1 out of 1 ...)

Shut down machine before beginning failover.

OK

MARSagentInstall...exe MARSagentInstall...exe MARSagentInstall...exe

MARSagentInstall...exe MARSagentInstall...exe MARSagentInstall...exe

MARSagentInstall...exe MARSagentInstall...exe MARSagentInstall...exe

MARSagentInstall...exe MARSagentInstall...exe MARSagentInstall...exe

Show all

**Subscriptions: Free Trial**

Name	Type	Status	Resource group	Location	Source	Maintenance status	Subscription
vm1	Virtual machine	Running	vm1-asr	Central US	Disk	-	Free Trial
vm1	Virtual machine	Stopped (deallocated)	vm1	West US	Marketplace	-	Free Trial
vm2	Virtual machine	Running	VM2	East US	Marketplace	-	Free Trial
vm3	Virtual machine	Stopped (deallocated)	vm3	West US 2	Marketplace	-	Free Trial
vm4	Virtual machine	Running	VM4	West US 2	Image	-	Free Trial

File activity bar:

- MARSAgentInstall...exe Canceled
- MARSAgentInstall...exe Canceled
- MARSAgentInstall...exe Canceled

## 7. Take a on-premises backup using backup agent and exclude test folder from any drive

**Recovery Services ...**

Default Directory

recoveryservicevault1 | Backup

Where is your workload running? On-Premises

What do you want to backup? Files and folders

Step: Prepare Infrastructure

Prepare Infrastruct...

File activity bar:

- MARSAgentInstall...exe Canceled

← → 🔒 portal.azure.com/#@prasannadprasannagmail.onmicrosoft.com/resource/subscriptions/b65e28ef-56f2-443e-ba99-ed54ffe6075a/resourceGroups/recoveryserviceva... ☆ 🌐 ⚙️

Microsoft Azure ⚙️ Search resources, services, and docs (G+) Home > Recovery Services vaults > recoveryservicevault1 > Prepare infrastructure

**Recovery Services Agent**  
Please follow the steps mentioned below.

1. Install Recovery Services agent  
[Download Agent for Windows Server or Windows Client](#)
2. Download vault credentials to register the server to the vault. Vault credentials will expire after 2 days.  
 Already downloaded or using the latest Recovery Services Agent  
[Download](#)
3. Schedule backup using Recovery Services Agent UI. [Learn More](#)
4. Once the backups are scheduled, you can use backup jobs page to monitor the backups. [Browse jobs page](#)
5. You can also Configure Notifications from alerts page to receive email alerts for backup failures. [Browse alerts page](#)

MARSAgentInstall...exe Canceled Show all X

Download the that 2 links for backup in the Microsoft backup recovery

