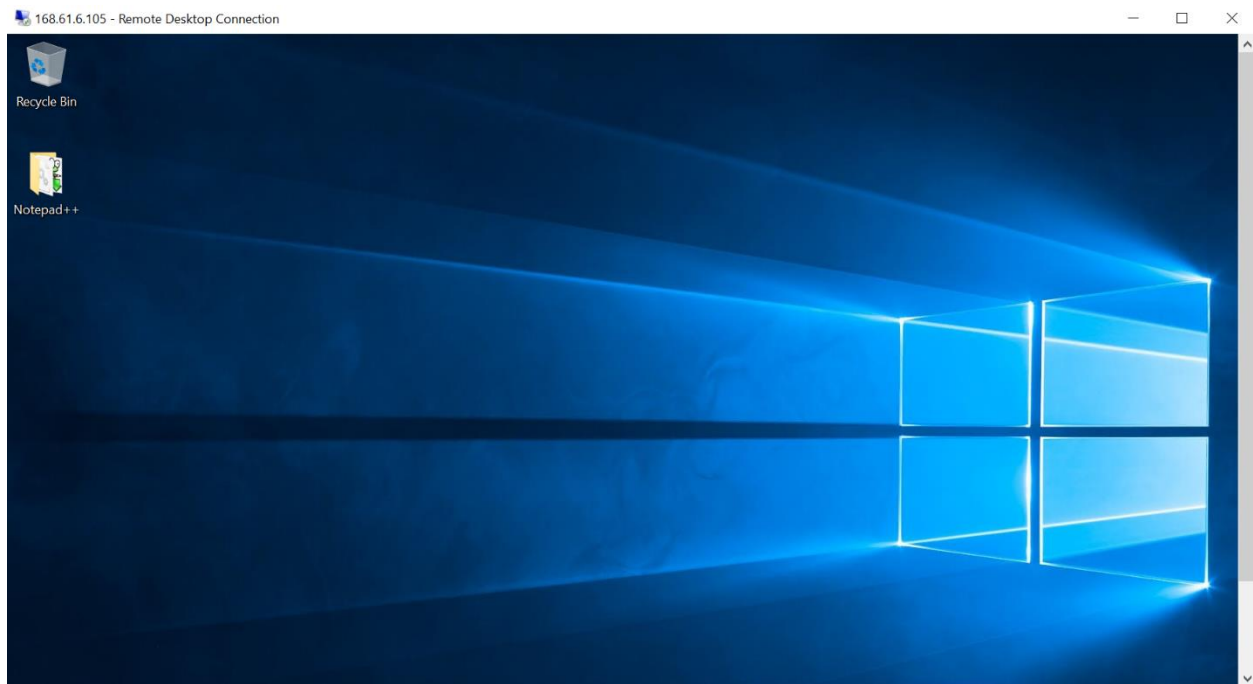
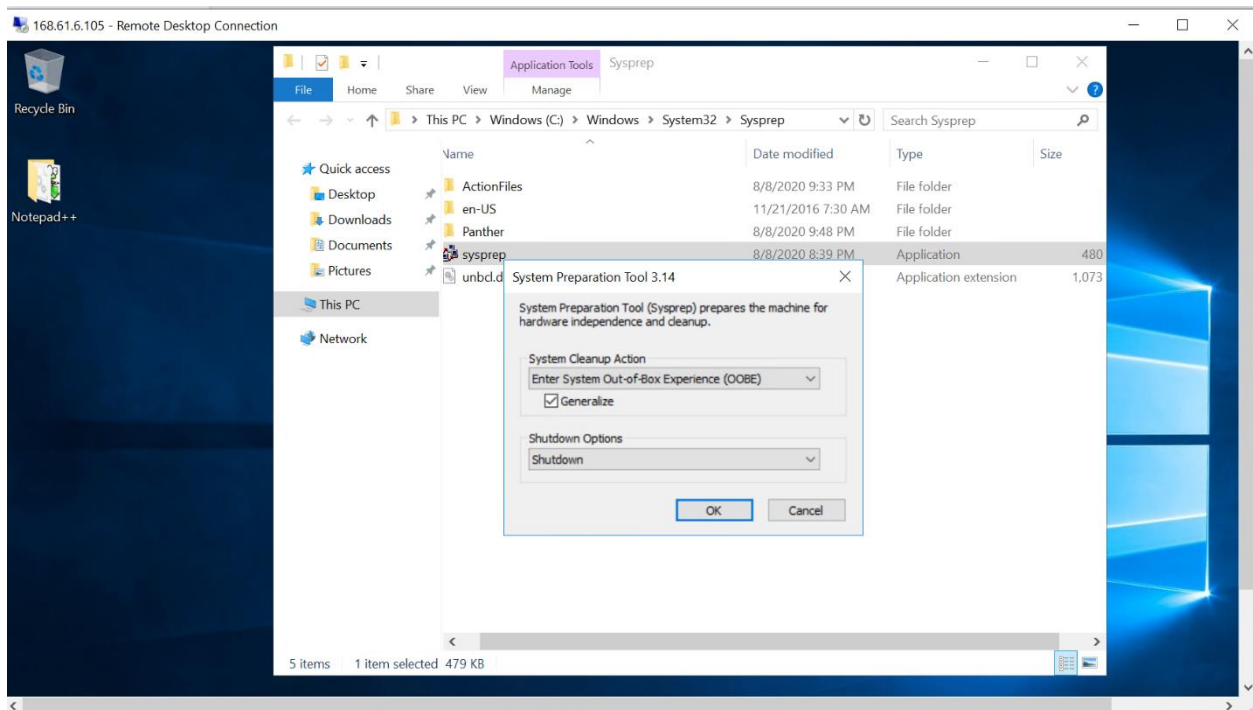


1. Deploy the custom image with any application installed:



- In the above I have downloaded one application(notepad++) in testvm.



- After that I generalize the vm using sysprep. It removes all the security and made the os usable for custom image generation.

Home > Images >

testvm-image-20200826072938

Image

Search (Ctrl+/) << + Create VM Delete

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

Settings

- Locks
- Export template

Support + troubleshooting

- New support request

NAME
testvm-image-20200826072938

SOURCE VIRTUAL MACHINE
testvm

OS DISK

OS type	Source blob URI	Storage type	Caching
Windows		Standard HDD	Read/write

DATA DISKS
This image doesn't contain any data disks.

RESOURCE GROUP
[testvm_group](#)

LOCATION
West US

➤ I am created a custom image of testvm

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

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Home > Virtual machines >

vmimage

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

Settings

- Networking
- Connect
- Disks
- Size
- Security
- Advisor recommendations
- Extensions

Essentials

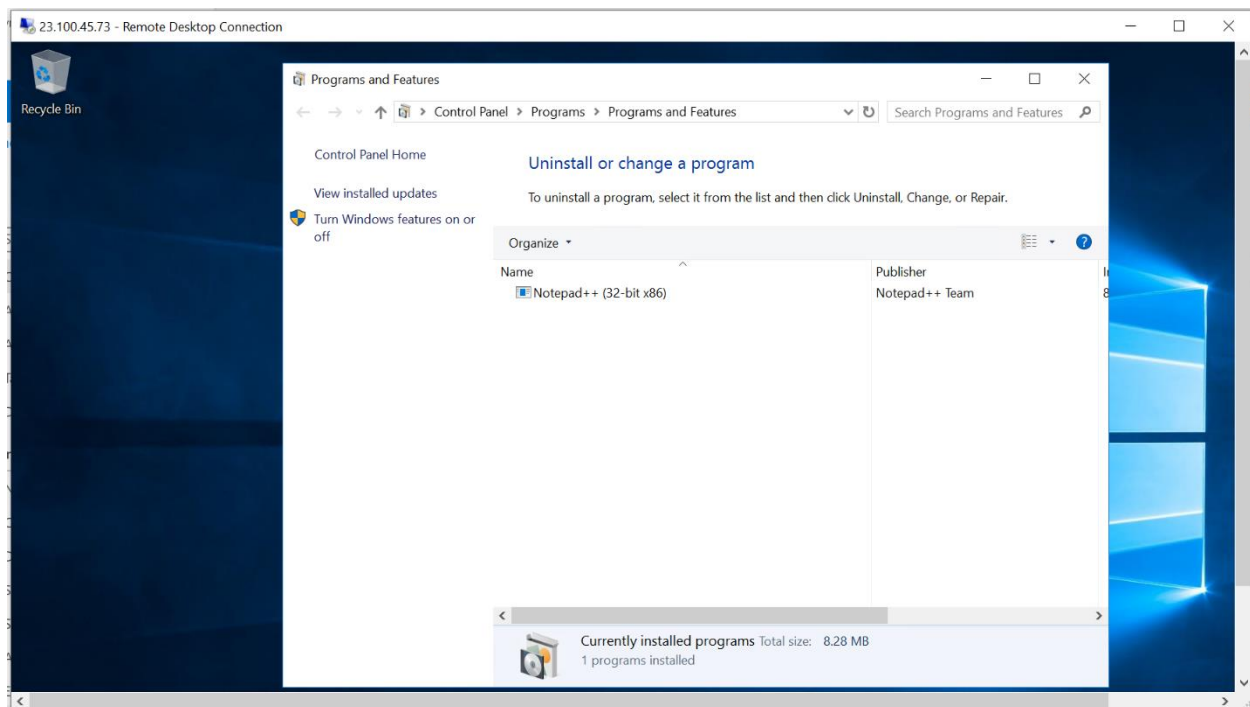
Resource group (change) testvm_group	Operating system Windows
Status Stopped (deallocated)	Size Standard DS1 v2 (1 vcpu, 3.5 GiB memory)
Location West US	Public IP address vmimage-ip
Subscription (change) Free Trial	Virtual network/subnet testvm_group-vnet/default
Subscription ID ac8451e0-e53c-4994-b469-b685d972d432	DNS name Configure
Tags (change) Click here to add tags	

Properties Monitoring Capabilities Recommendations Tutorials

Virtual machine

Computer name (start VM to view)	Public IP address vmimage-ip
-------------------------------------	---

➤ I have created a another vm vmimage by using custom image testvm.



I open the vmimage. Here I check whether the Notepad++ is installed or not. It is installed because this vm is created using custom image from testvm where already Notepad++ is installed before the Custom image creation.

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:

Home >

Virtual networks

DXC Production

+ Add Manage view Refresh Export to CSV Open query Assign tags Feedback

Filter by name... Subscription == (all) Resource group == (all) Location == (all) Add filter

Showing 1 to 3 of 3 records. No grouping List view

<input type="checkbox"/>	Name ↑↓	Resource group ↑↓	Location ↑↓	Subscription ↑↓	
<input type="checkbox"/>	testvm-vnet	testvm	West US	Free Trial	...
<input type="checkbox"/>	testvm-vnet-asr	testvm-asr	East US 2	Free Trial	...
<input type="checkbox"/>	vmimage-vnet	vmimage	East US	Free Trial	...

- In the above diagram I have created two virtual networks, one network is in westus location and another one is in eastus location.

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

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Home > Virtual networks >

testvm-vnet | Peerings

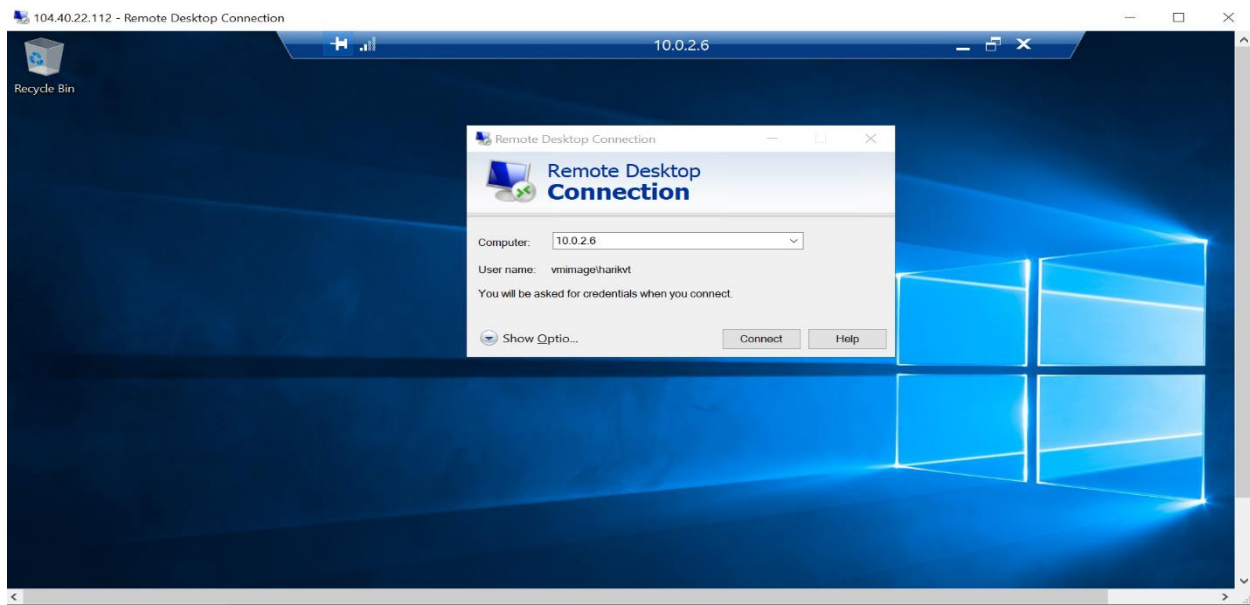
Virtual network

Search (Ctrl+/) Add Refresh

Filter by name...

Name	Peering status	Peer	Gateway transit	
westtoeast	Connected	vmimage-vnet	Disabled	...

- In the above diagram I have enabled a peering connection between westus to eastus



- In the above diagram I am accessing my virtual machine using private ip from westus location. Actually it is in eastus location as shown in below diagram.

Home > Virtual machines >

vmimage
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

Settings

- Networking
- Connect
- Disks
- Size
- Security
- Advisor recommendations
- Extensions

Advisor (1 of 4): Install monitoring agent on your virtual machines →

Location	Public IP address
East US	-
Subscription (change)	Virtual network/subnet
Free Trial	vmimage-vnet/default
Subscription ID	DNS name
ac8451e0-e53c-4994-b469-b685d972d432	-
Tags (change)	
Click here to add tags	

✕ Essentials [View as JSON](#)

Properties Monitoring Capabilities Recommendations (4) Tutorials

Virtual machine	Networking
Computer name (start VM to view)	Public IP address -
Operating system	Public IP address (IPv6) -
SKU	Private IP address 10.0.2.6

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

Home >

Virtual network gateways

DXC Production

+ Add Edit columns Refresh Assign tags

Subscriptions: Free Trial

Filter by name... All resource groups All locations All tags No grouping

1 items

Name ↑↓	Virtual network	Gateway type	Resource group ↑↓	Location ↑↓	Subscription ↑↓	
pointtosite	vmimage-vnet	VPN	vmimage	East US	Free Trial	...

➤ I have created a point to site VPN in eastus location

Console1 - [Console Root\Certificates - Current User\Personal\Certificates]

File Action View Favorites Window Help

Console Root

- Certificates - Current User
 - Personal
 - Certificates
 - Trusted Root Certificatio
 - Enterprise Trust
 - Intermediate Certificatio
 - Active Directory User Ob
 - Trusted Publishers
 - Untrusted Certificates
 - Third-Party Root Certific
 - Trusted People
 - Client Authentication Iss
 - Other People
 - Local NonRemovable Ce
 - Certificate Enrollment Re
 - Smart Card Trusted Root

Issued To	Issued By	Expiration Date	Intendec
S-1-12-1-3237268386-11241949...	S-1-12-1-3237268386-1124194962-...	05-08-2050	Smart Ce
TESTHARI	TESTKVT	17-08-2021	Client Au
TESTKVT	TESTKVT	17-08-2021	<All>

Actions

- Certificates
- More Actions

Personal store contains 3 certificates.

➤ I have created a root certificate and client certificate using windows powershell.




test - Notepad

File Edit Format View Help

```
-----BEGIN CERTIFICATE-----
MIIC3zCCAcgAwIBAgIQF/8SN08MQqxF5HPoKj4zsZANBgkqhkiG9w0BAQsFADAS
MRAwDgYDVQQDDAdURVNUS1ZUMB4XDTIwMDgxNzEzNTQyN1oXDTIxMDgxNzE0MTQy
N1owEjEQMA4GA1UEAwwHVEVTVEtWVDCASiWDQYJKoZIhvcNAQEBBQADggEPADCC
AQoCggEBAK1CMwS7Rm99VU07zp2wHekb/kdvH+zCQ7qbPcTixrpqvHYHFwfUrq+V
opONKtRpY9H7qkoE8jXXTG1/3Omt/Oc41W1zGOcooWP9QBfHX/mmIL6oxk9EmrBI
fXW6fkT5L481HdUn87p7HoH80yI71BI7361ixmo0UJcq8dnAjwzNwRe91nVIBg+U
k3RDGDOU//JbTdRR9UBRQ9WCxgl8VGX2FUsOUbbSjDFA+QdxICUq6PUVbK1PZtiz
eBROvQK81jK4jROspKRAMf4dG+z+vk61WcvC3ykbFf/7bL1Y0sZy1Lm2akUh1eZJ
oRfYyPd1QVRsIyV9QIDpmcPygyIHq00CAwEAAAMxMC8wDgYDVROPAQH/BAQDAgIE
MB0GA1UdDgQWBBSBbu4gCPd2NeEIJu2DV0gJ2AEuDDANBgkqhkiG9w0BAQsFAAOC
AQEATxCaesGj2BKfyX9i/srgBXqreEdAASnuCgu0usLcctk6kuchPNG/GE4PqAC
aNz8B8sYnO9R7OQ8CIjc2XW7QfSEq2jq5p/1f2YFH1vMPvQRh1vRIttTlg580SFe
VQ6//FGBEjucySTHbfW/FxJigtK3Sk1w1/GheeCsGzoHCpcw+BA8am0tVnA9MT+S
+9LzsUoApbst3yIbb3mKaLAXHq2+sEa+ePn+5USKx49SVYpYJNYIeLkyCnHtpp8q
yYfD8YuLds569U42r5cw4s3gBt0NDzyJcX84oBNrePbSAL8tle9YtMHRs7VHMZj8
Ljob2tWhnYt9z61wXhki8GIQ2g==
-----END CERTIFICATE-----
```

- After that I export the root certificate and copy the key inside the certificate in order to upload it in azure portal.

VPN

 Add a VPN connection

 vmimage-vnet
Connected

Advanced options

Disconnect

Advanced Options

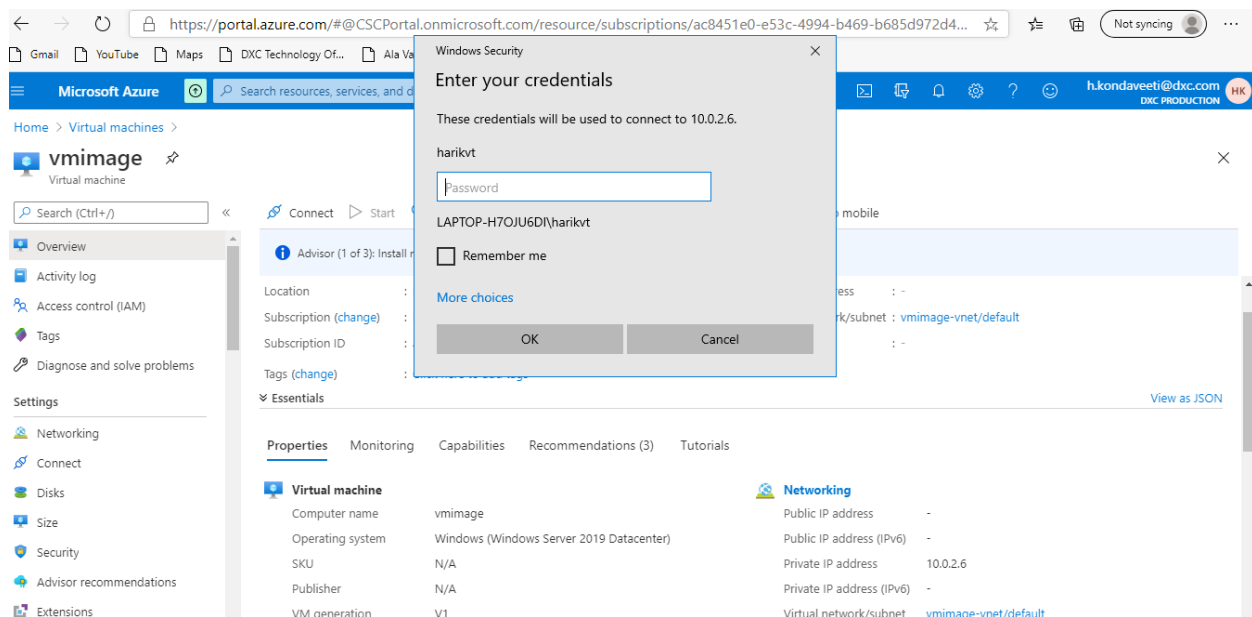
Allow VPN over metered networks

 On

Allow VPN while roaming

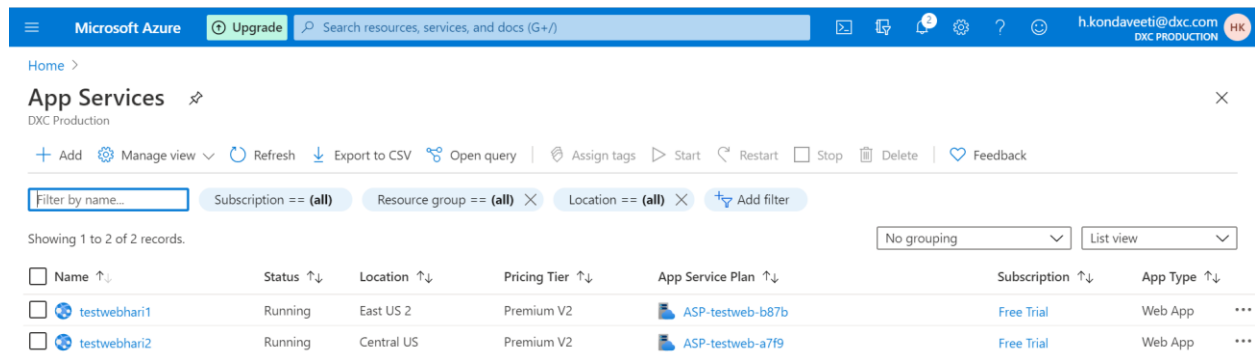
 On

- I am connected VPN to my personal laptop.



- I am trying to connect virtual machine with private IP address within the virtual network connected to my personal laptop.

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



Home > App Services ✕

DXC Production

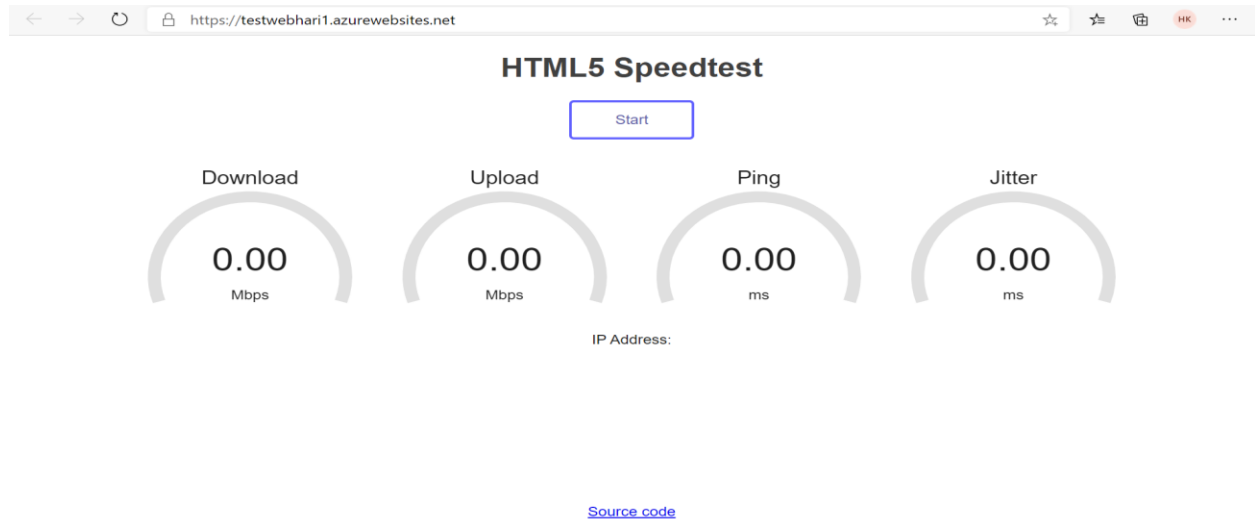
+ Add ⚙️ Manage view ▾ ↻ Refresh ⬇️ Export to CSV 🔗 Open query | 🏷️ Assign tags ▶ Start ⏪ Restart ☐ Stop 🗑️ Delete | ❤️ Feedback

Filter by name... Subscription == (all) Resource group == (all) × Location == (all) × + Add filter

Showing 1 to 2 of 2 records. No grouping ▾ List view ▾

<input type="checkbox"/> Name ↑↓	Status ↑↓	Location ↑↓	Pricing Tier ↑↓	App Service Plan ↑↓	Subscription ↑↓	App Type ↑↓
<input type="checkbox"/> testwebhari1	Running	East US 2	Premium V2	ASP-testweb-b87b	Free Trial	Web App ...
<input type="checkbox"/> testwebhari2	Running	Central US	Premium V2	ASP-testweb-a7f9	Free Trial	Web App ...

➤ I have created two web applications.



➤ First I created a webapp named testwebhari1



➤ Second I created a webapp named testwebhari2

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

Home > Traffic Manager profiles > testtraffic1

Traffic Manager pr... DXC Production

+ Add Manage view ...

Filter by name...

Name ↑

testtraffic1

testtraffic1 | Endpoints

Search (Ctrl+/)

+ Add Refresh

Search endpoints

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

Page 1 of 1

- After that I create a traffic manager profile using priority routing method and connect the end points of two webapps which I create earlier.

HTML5 Speedtest

Start

Download 0.00 Mbps

Upload 0.00 Mbps

Ping 0.00 ms

Jitter 0.00 ms

IP Address:

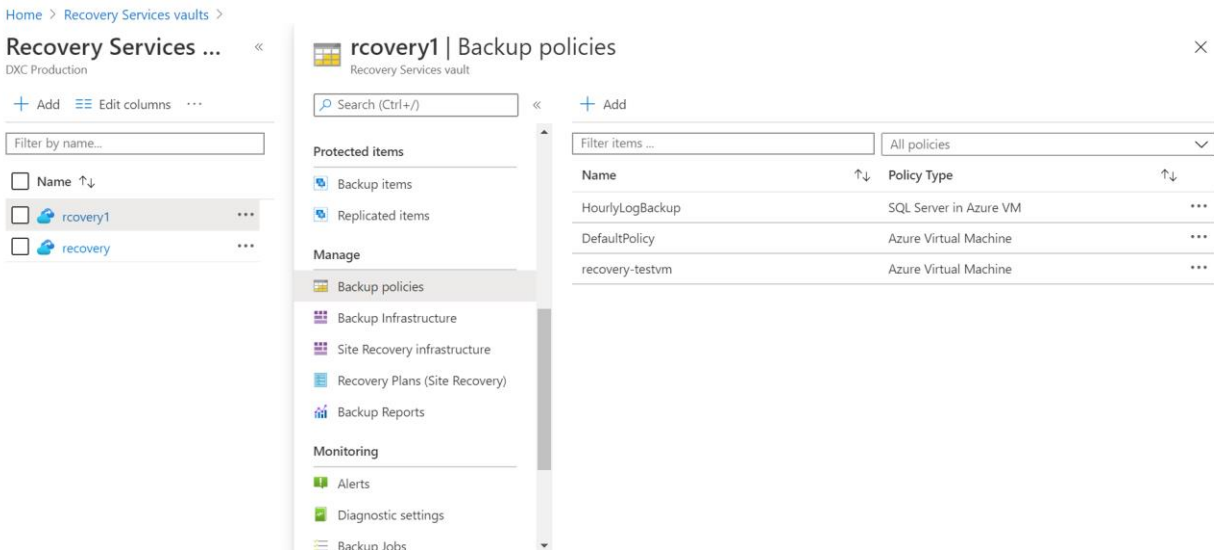
- After connecting to traffic manager profile I try to access the web apps using traffic manager url and it shows the testwebhari1 web app. Because it has priority 1

testtraffic1.trafficmanager.net

url is required

- Next I disable the 1st webapp and try to access the same url. Now it shows testwebhari2 webapp because the 1st webapp which has priority 1 is disabled and 2nd app has priority 2 so it opened

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



- In the above diagram first I have created a recovery1 by using recovery service vault then I have created a backup policy for test-vm virtual machine

[Home](#) > [Recovery Services vaults](#) > [rcovery1 | Backup policies](#) >

recovery-testvm

Backup policy

[Associated items](#) [Modify](#) [Delete](#)

[Learn more and get FAQs about Backup policy](#)

BACKUP FREQUENCY

Daily at 11:00 PM India Standard Time

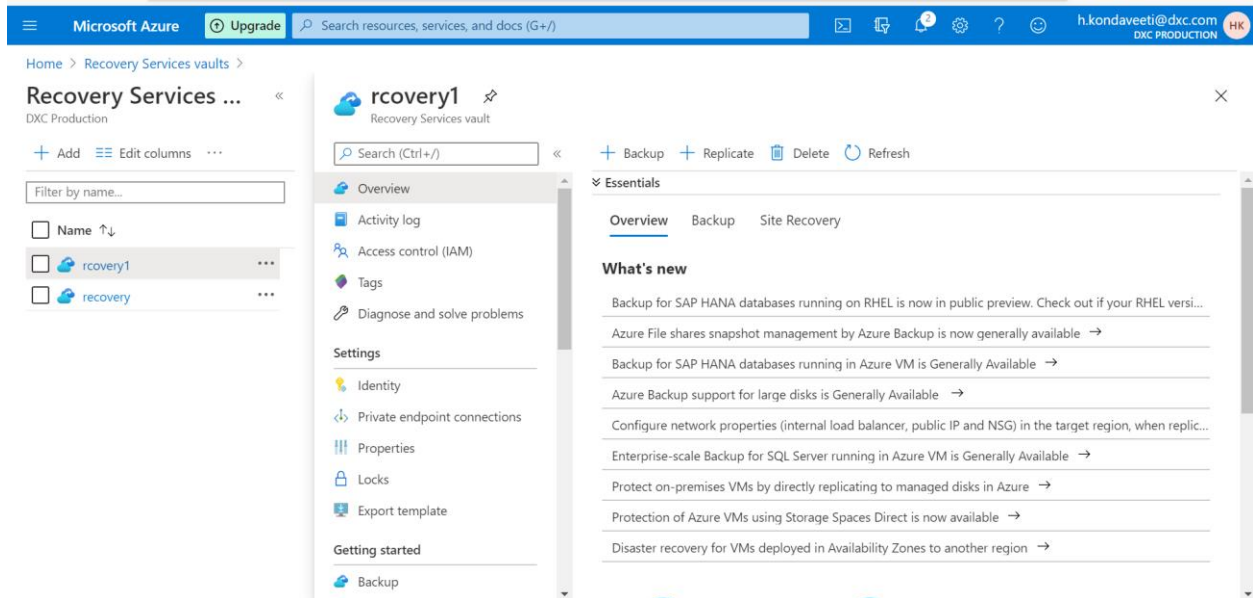
RETENTION RANGE

Retention of daily backup point

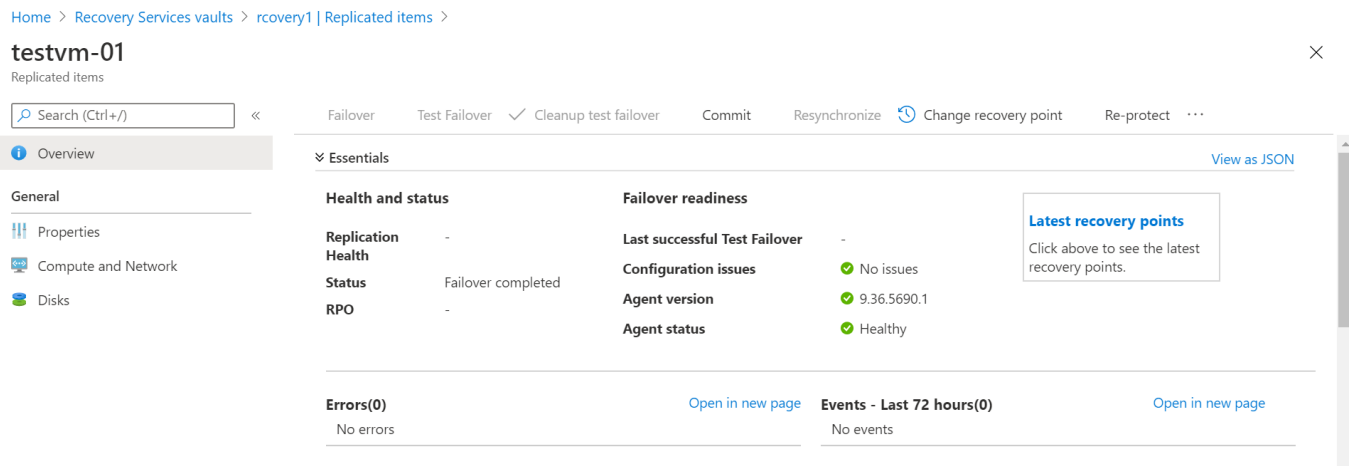
Retain backup taken every day at 11:00 PM for 10 Day(s)

- In the above diagram I have created a backup policy for the VM and assigned a daily policy to the VM with 10 days retention period.

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



➤ Here also first I have created azure recovery service vault named recovery1.



➤ I did a failover by using recovery service vault for test-vm which is in westus.

[Home](#) >

Virtual machines

DXC Production

[Add](#) [Reservations](#) [Edit columns](#) [Refresh](#) [Assign tags](#) [Start](#) [Restart](#) [Stop](#) [Delete](#) [Services](#)

Subscriptions: Free Trial

Filter by name...

All resource groups




All types

All locations

All tags

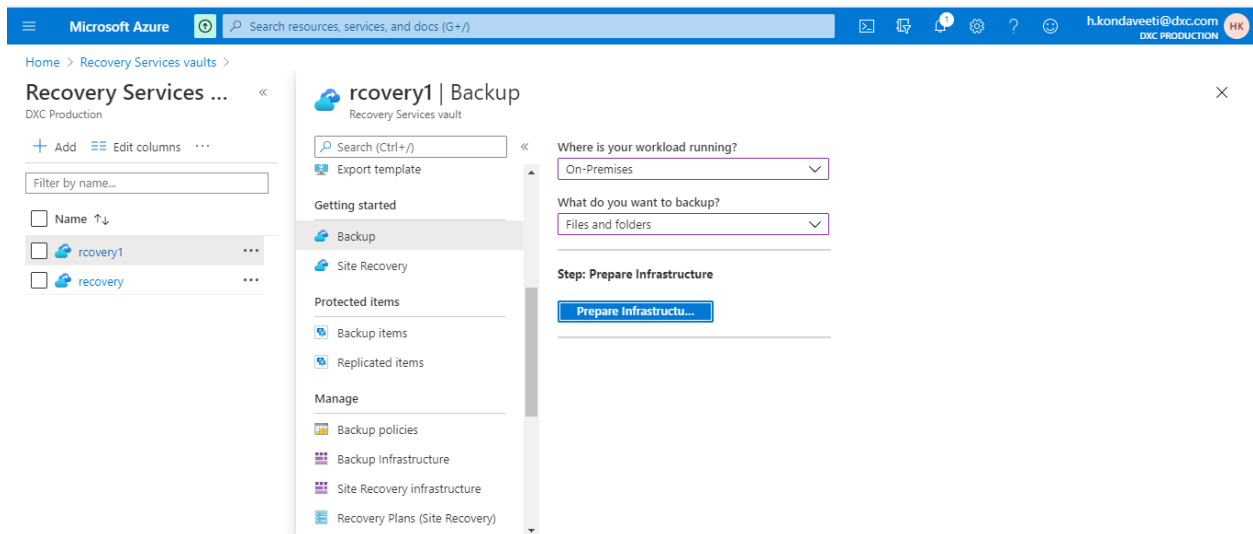
No grouping

3 items

<input type="checkbox"/> Name ↑↓	Type ↑↓	Status	Resource group ↑↓	Location ↑↓	Source	Maintenance status	Subscription ↑↓
<input type="checkbox"/>  testvm-01	Virtual machine	Stopped (deallocated)	TESTVM-ASR	East US 2	Disk	-	Free Trial
<input type="checkbox"/>  testvm-01	Virtual machine	Stopped (deallocated)	testvm	West US	Marketplace	-	Free Trial
<input type="checkbox"/>  vmimage	Virtual machine	Stopped (deallocated)	VMIMAGE	East US	Image	-	Free Trial

- After completion of failover it is replicated from westus location to eastus location.

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



The screenshot shows the Microsoft Azure portal interface for the 'rcovery1' Recovery Services vault. The left sidebar lists the vault and its contents. The main pane displays the 'Backup' configuration page. The 'Where is your workload running?' dropdown is set to 'On-Premises', and the 'What do you want to backup?' dropdown is set to 'Files and folders'. Under the 'Step: Prepare Infrastructure' section, there is a 'Prepare Infrastructure...' button.

- I have taken a on-premises backup.

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

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Home > Recovery Services vaults > rcovery1 >

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](#)

https://portal.azure.com/#

Schedule Backup Wizard

Select Items to Backup

Modify or Stop a Schedul...

Select Items to Backup

Specify Backup Schedule ...

Select Retention Policy (F...

Confirmation

Modify Backup Progress

Click Add Items to select the files and folders you want to backup.

Select Items

Specify items to include in the backup by selecting or clearing the associated check boxes. The items that you have included in the current backup are already selected.

C:

\$RECYCLE.BIN

S-1-5-21-2136229140-2870175696-1248159847-1001

93b658fa4ab03933adddf009

N-SOFT

Windows10Upgrade

☒ rcovery1_Tue Aug 25 2020.VaultCredentials

Use "Exclusion Settings" for removing all items within a volume. Refer to <https://aka.ms/MarsUnselectVolume> to learn about the implications of not using "Exclusion Settings" for removing all items in a volume.

OK

Cancel

Remove Items

Exclusion Settings

If a backup location includes file types or sub-folders that you do not want to back up, click Exclusion Settings to remove those items from the backup.

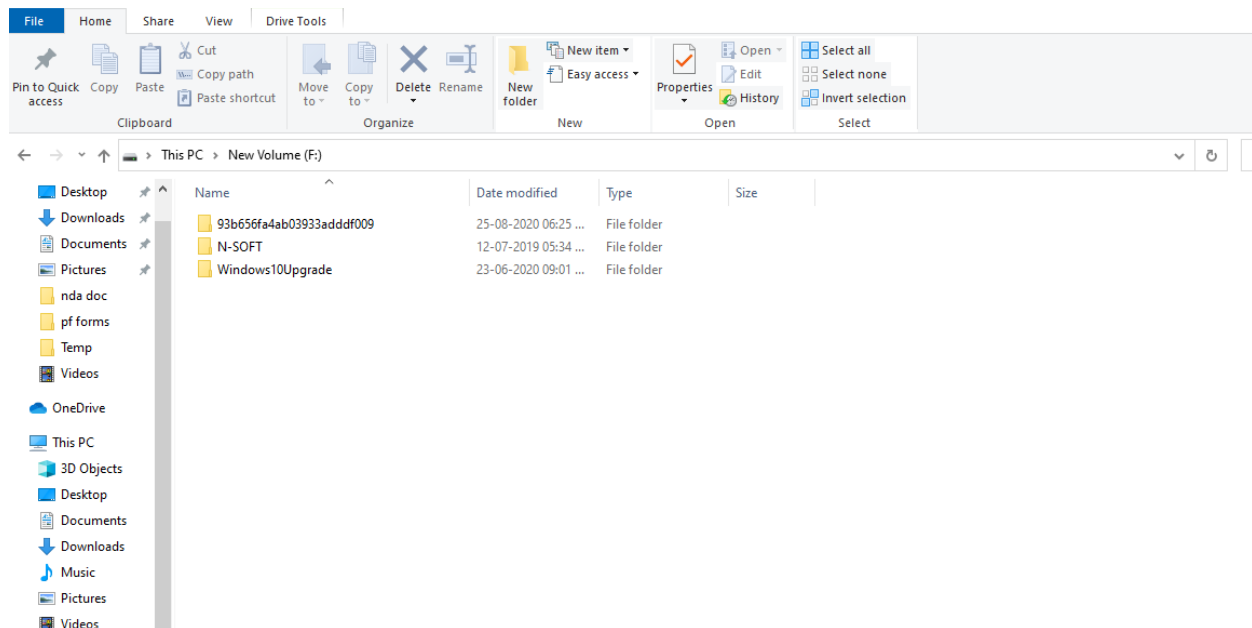
< Previous

Next >

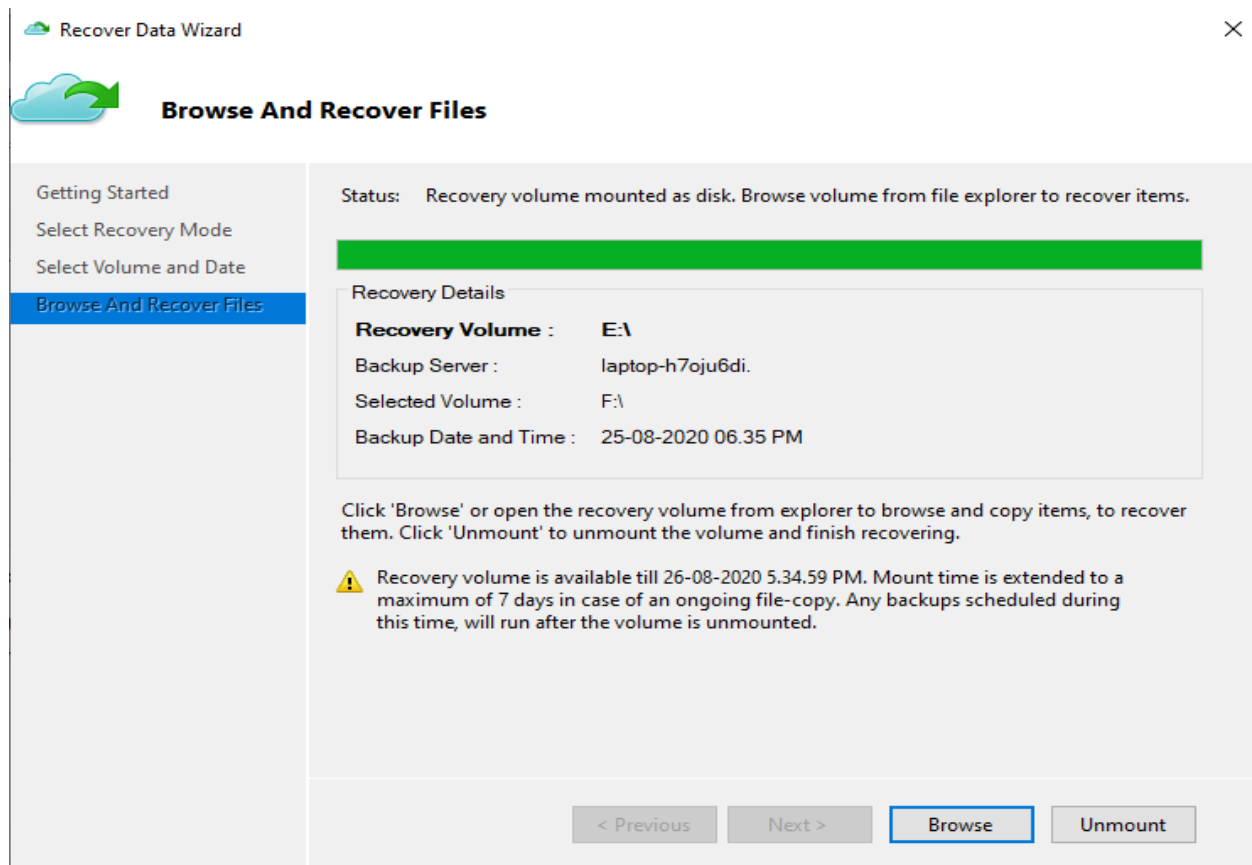
Finish

Cancel

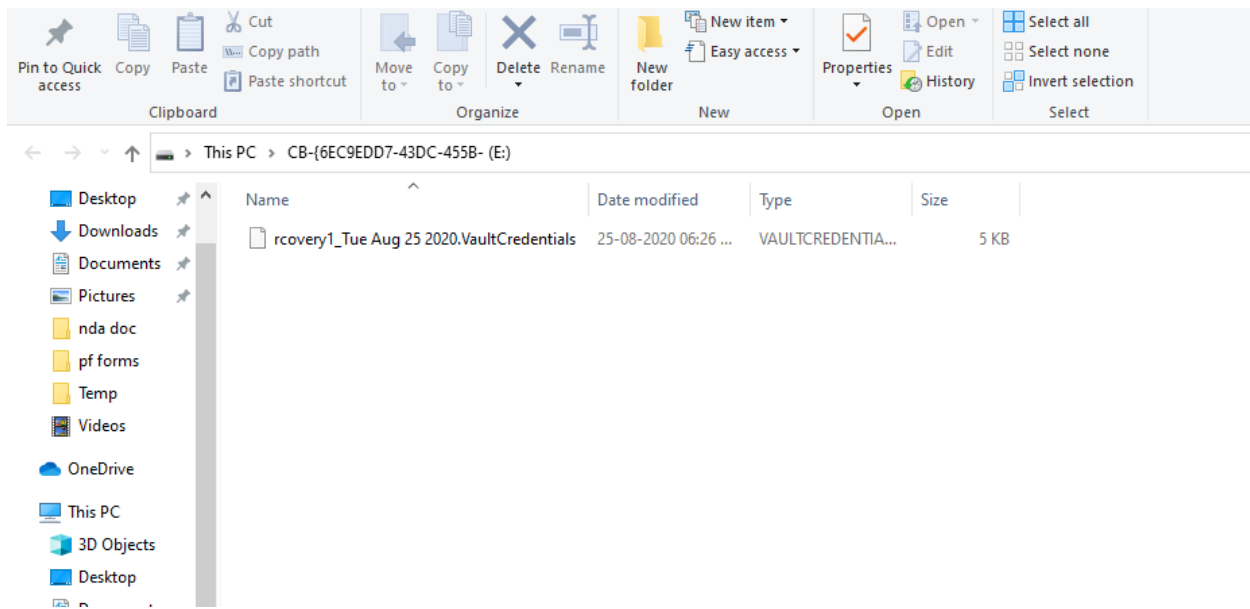
➤ In this I am using F-drive for backup and I scheduled a backup.



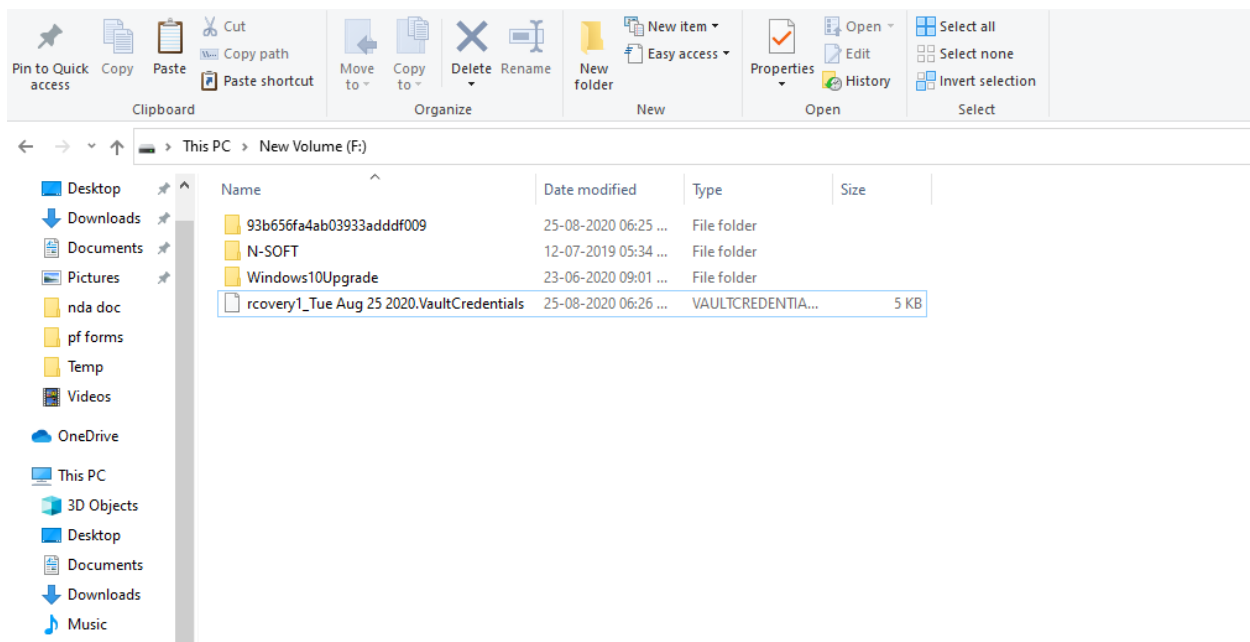
- I have deleted a file in f-drive trying to recover data.



- Data recovered in a new volume E.



➤ I copied data from E-volume to F-volume.



➤ I pasted data in F-volume and unmount the data.

Microsoft Azure Backup

File Action View Help

Microsoft Azure Backup supports scheduled backups of files and folders to an online location

⚠ Backups have not been configured for this server. Click "Schedule Backup" in the Actions pane to configure backup options and schedule a regular backup. You can also Configure Notifications from Alerts blade to receive email alerts for backup failures. [Learn More](#).

Jobs (Activity in the past 7 days, double click on the message to see details)

Jobs Alerts

Status	Time	Message	Description
✓	25-08-2020 06:42 PM	Recovery	Job completed.
✓	25-08-2020 06:35 PM	Backup	Job completed.

Status

Last Backup
Status: ✓ Successful
Time: 25-08-2020 06:35 PM
[View details](#)

Next Backup
Status: Scheduled
Time: 26-08-2020 09:00 AM

Available Recovery Points
Total backups: 1
Latest copy: 25-08-2020 06:35 PM
Oldest copy: 25-08-2020 06:35 PM
[View details](#)

Last Recovery
Status: ✓ Successful
Time: 25-08-2020 06:42 PM
[View details](#)

Scheduled Backups

Actions

- Backup
 - Register Server
 - Schedule Backup
 - Back Up Now
 - Recover Data
 - Change Properties
 - Open Portal
 - About Microsoft Azure Recovery S...
 - Privacy & Cookies
 - View
 - Help

- I have scheduled backup and recovered data successfully in on-premises.