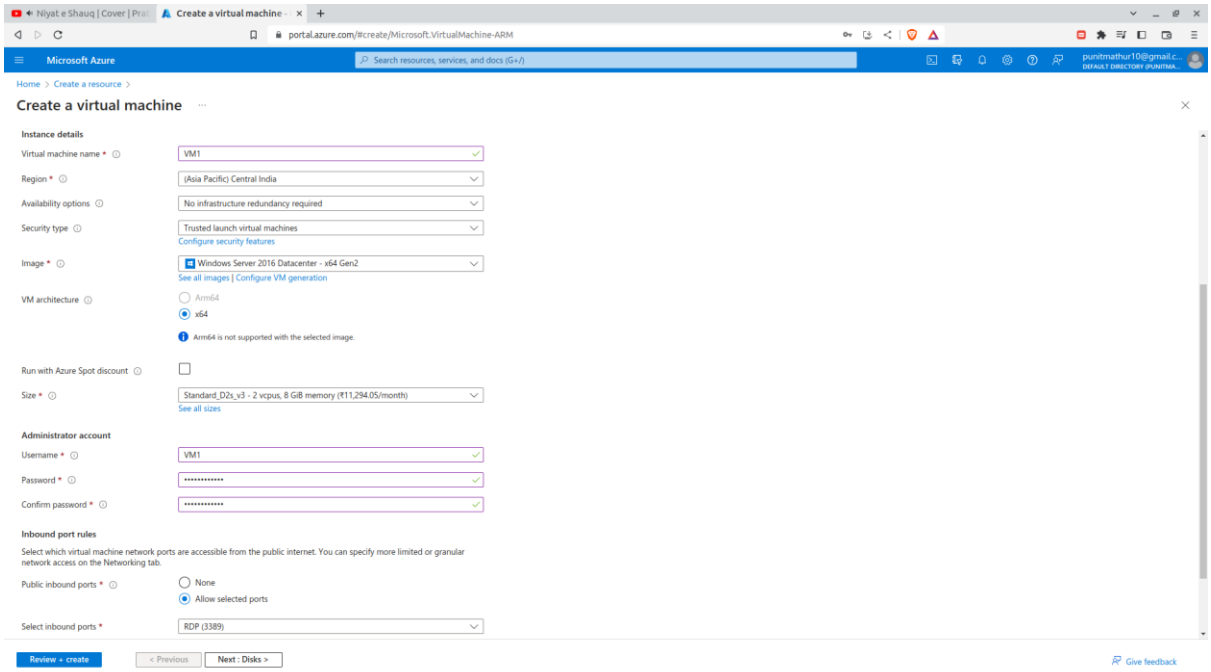
Week 5 (IIS web Server, Hyper-V Data Disk, Static IP)

Task-1 :
To install an Internet Information Service(IIS) web server.

IIS - IIS (Internet Information Services) is a web server software developed by Microsoft. It is included as a role in Windows Server operating systems. IIS enables hosting and serving websites, web applications, and other web-related content on the internet or intranet.

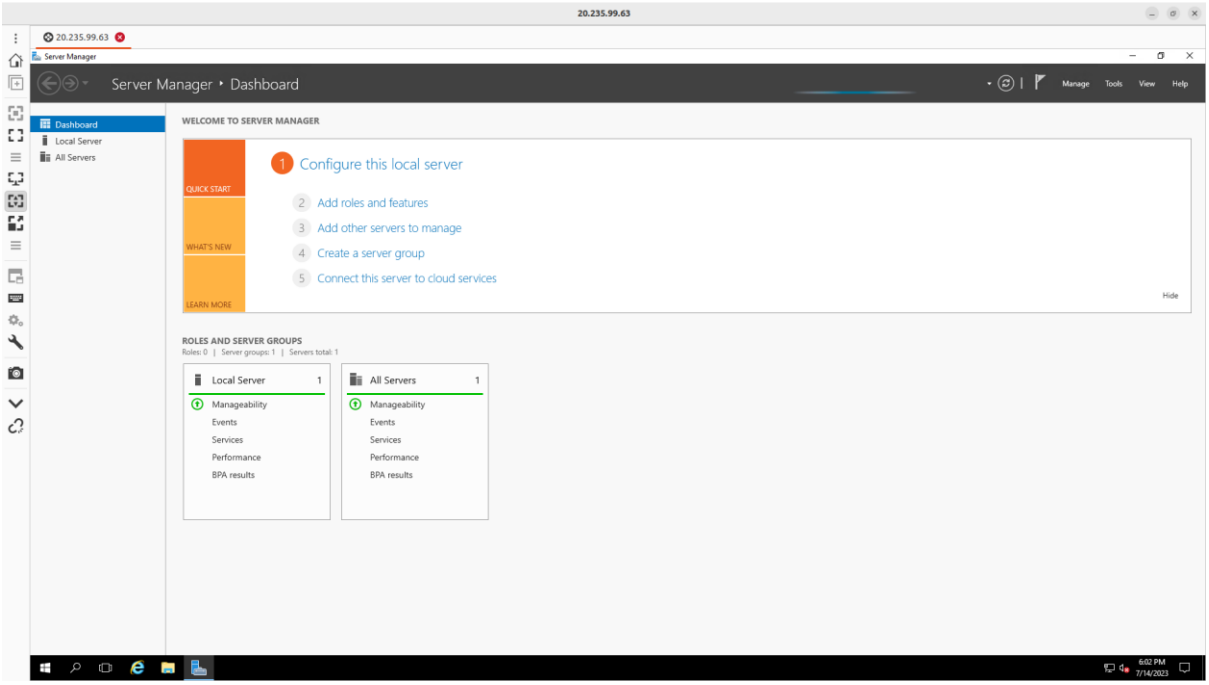
Now in the following steps we will install an IIS web server.

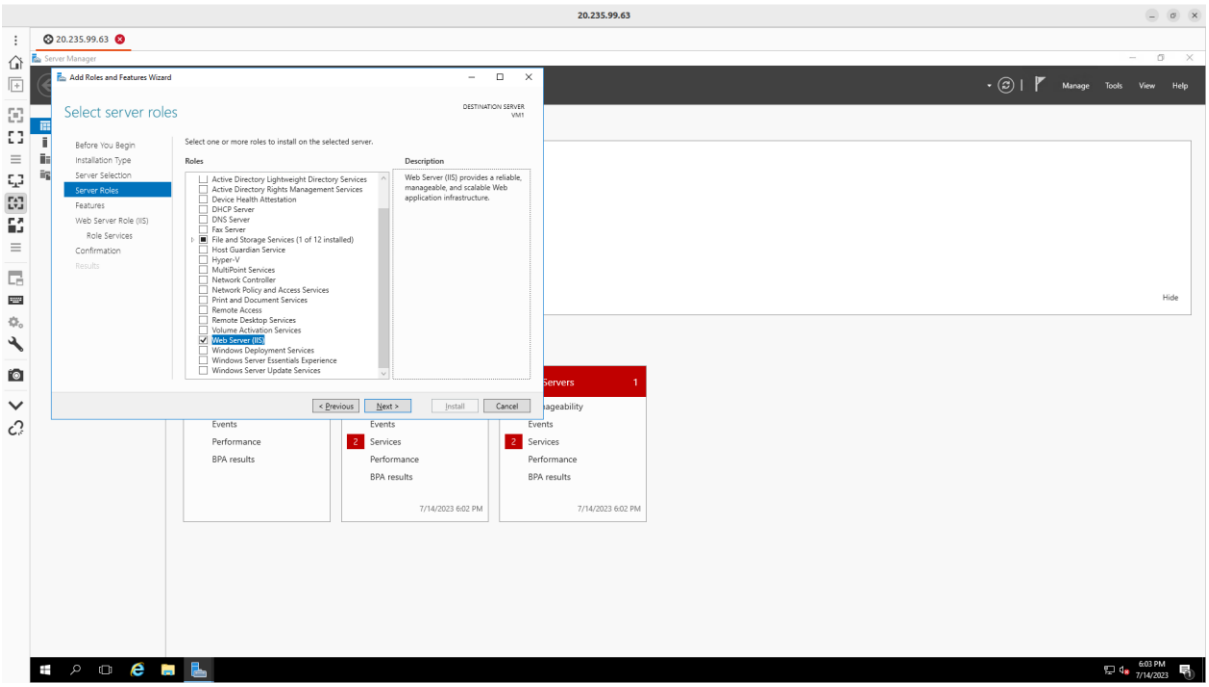
Step 1 - Create a virtual machine. Name it as VM1 and image as windows server 2016 datacenter with standard_D2s_v3 size.

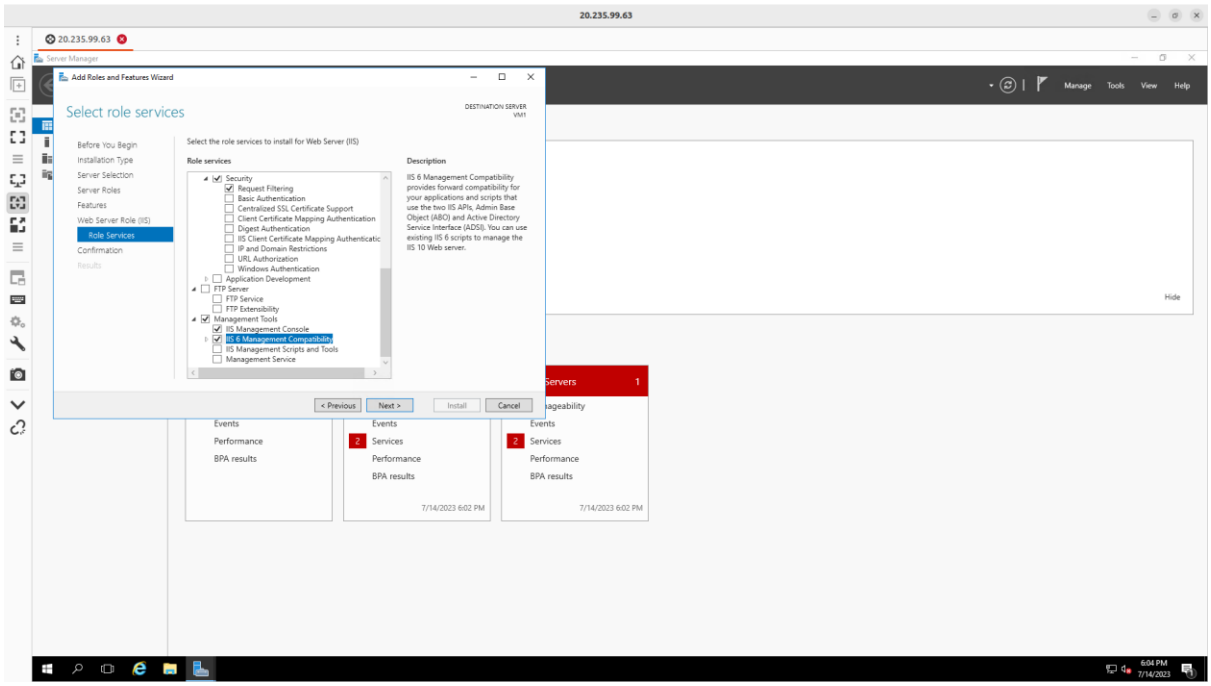


Step 2 - Adding roles and features.

Now open the created VM using RDP and open the server manager dashboard in that then click add role and features. Then simply follow the steps of screenshots to install the IIS Web server.



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Server Manager
Add Roles and Features Wizard
Select role services
DESTINATION SERVER
VM1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Web Server Role (IIS)
Role Services
Confirmation
Results
Select the role services to install for Web Server (IIS)
Role services
Description
Security
Request Filtering
Basic Authentication
Centralized SSL Certificate Support
Client Certificate Mapping Authentication
Digest Authentication
IIS Client Certificate Mapping Authentication
IP and Domain Restrictions
URL Authorization
Windows Authentication
Application Development
FTP Server
FTP Service
FTP Extensibility
Management Tools
IIS Management Console
IIS 6 Management Compatibility
IIS Management Scripts and Tools
Management Service
IIS 6 Management Compatibility provides forward compatibility for your applications and scripts that use the two IIS APIs, Admin Base Object (ABO) and Active Directory Service Interface (ADSI). You can use existing IIS 6 scripts to manage the IIS 10 Web server.
< Previous
Next >
Install
Cancel
Manage
Tools
View
Help
Hide
Servers
1
Events
Performance
BPA results
Services
Performance
BPA results
7/14/2023 6:02 PM
Manageability
Events
Services
Performance
BPA results
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6:04 PM
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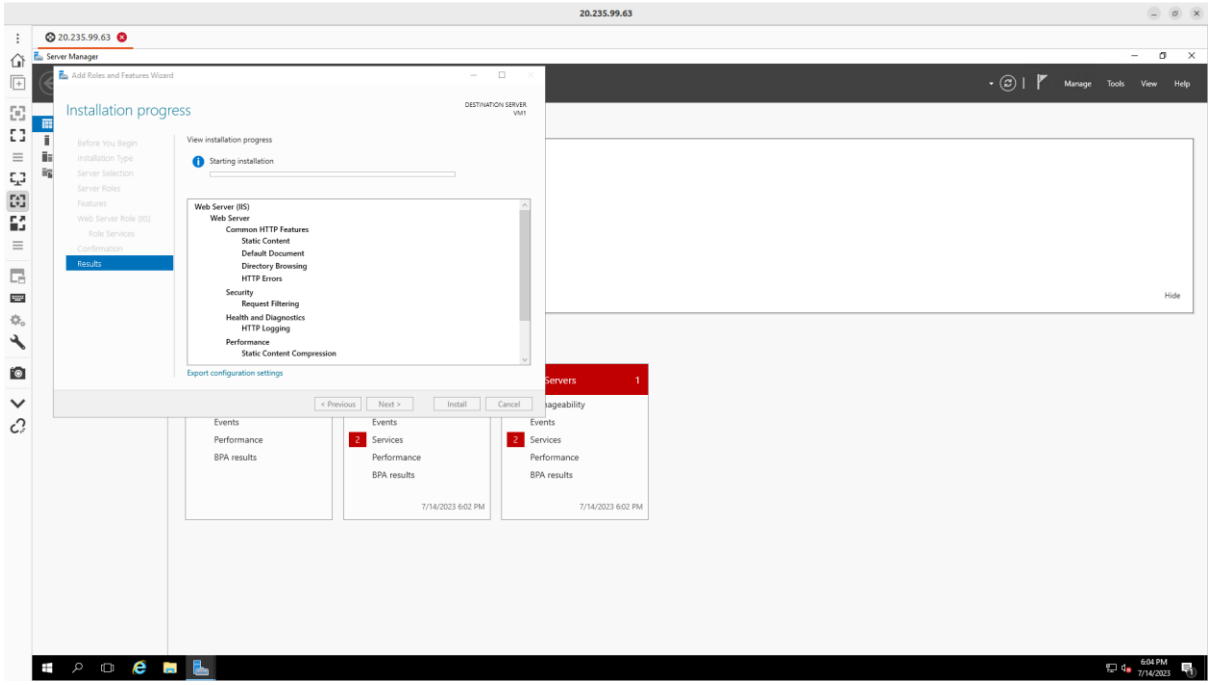
20.235.99.63
Server Manager
Add Roles and Features Wizard
Installation progress
DESTINATION SERVER
VM1
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Web Server Role (IIS)
Role Services
Confirmation
Results
View installation progress
Starting installation
Web Server (IIS)
Web Server
Common HTTP Features
Static Content
Default Document
Directory Browsing
HTTP Errors
Security
Request Filtering
Health and Diagnostics
HTTP Logging
Performance
Static Content Compression
Export configuration settings
< Previous
Next >
Install
Cancel
Manage
Tools
View
Help
Hide
Servers
1
Events
Performance
BPA results
Services
Performance
BPA results
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Manageability
Events
Services
Performance
BPA results
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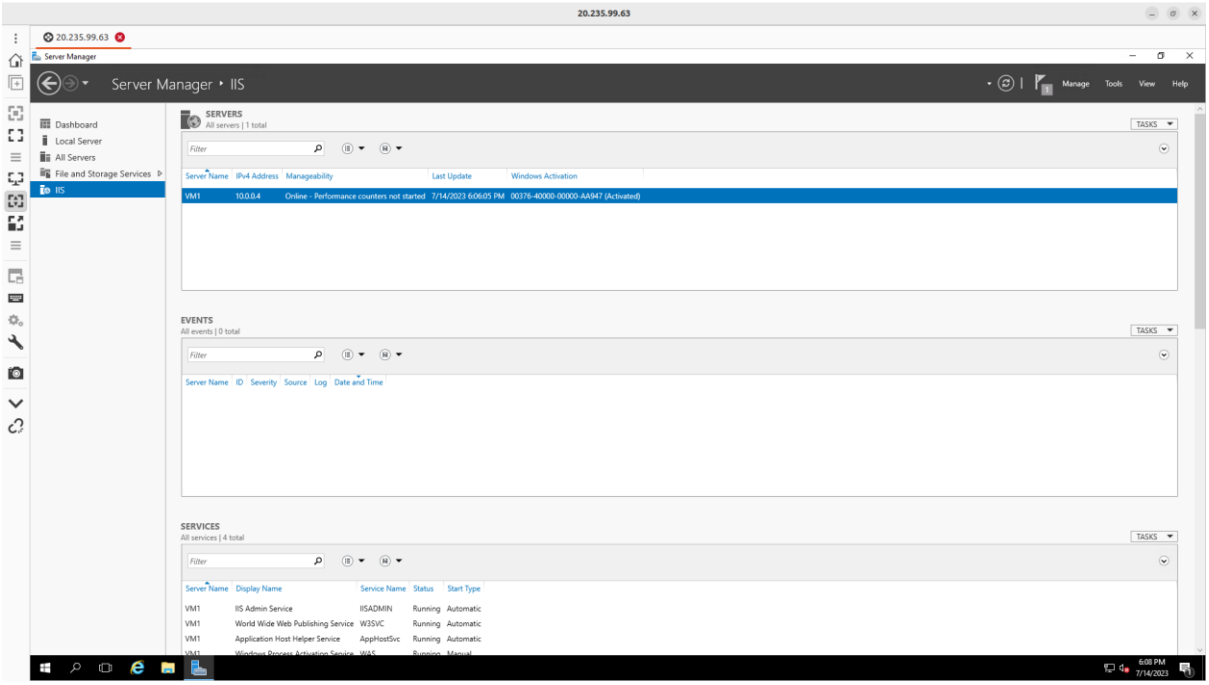
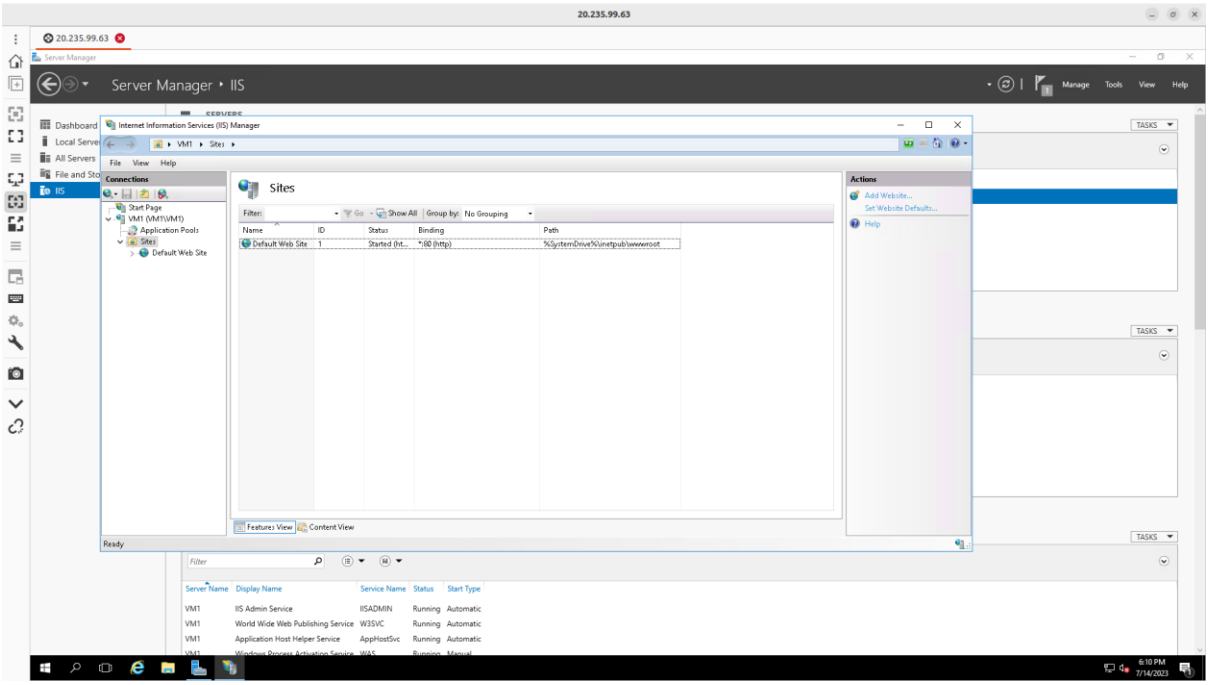
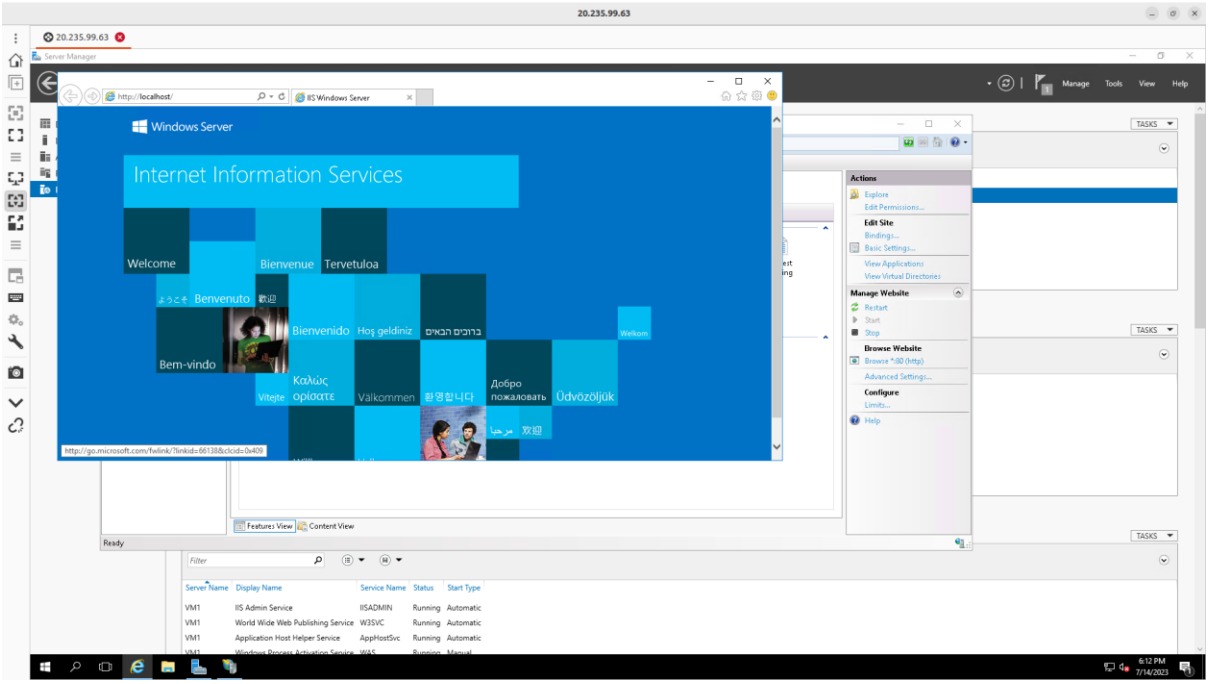
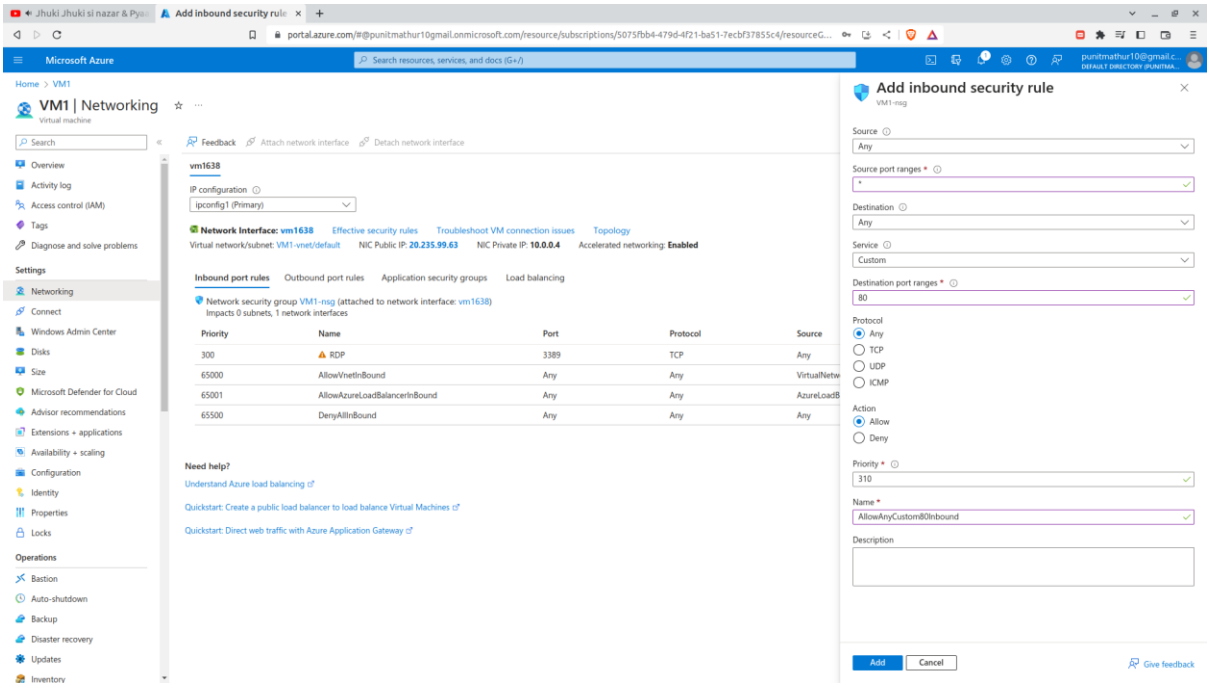
After the installation of IIS web server, open the IIS Manager so that we can open the default website. Follow the steps in Following screenshots :



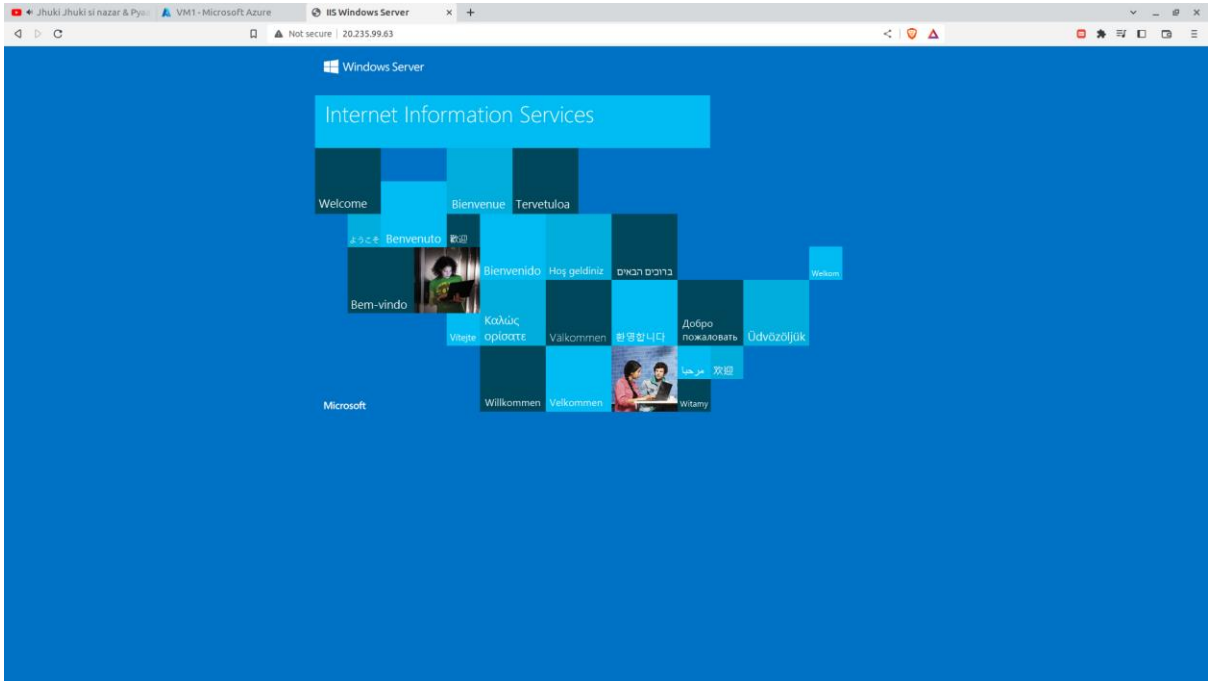




This website will not open on a new tab by directly copying the public IP address. So to resolve this problem we will Add Inbound Port Rules. Just Follow the Steps From the next Screenshots.



Now after adding the inbound port rules we can see that the website can be accessed from opening new tab.



Now the IIS web server is successfully installed, we will move onto the next task.

Task 2 - To allocate Static IP to VM

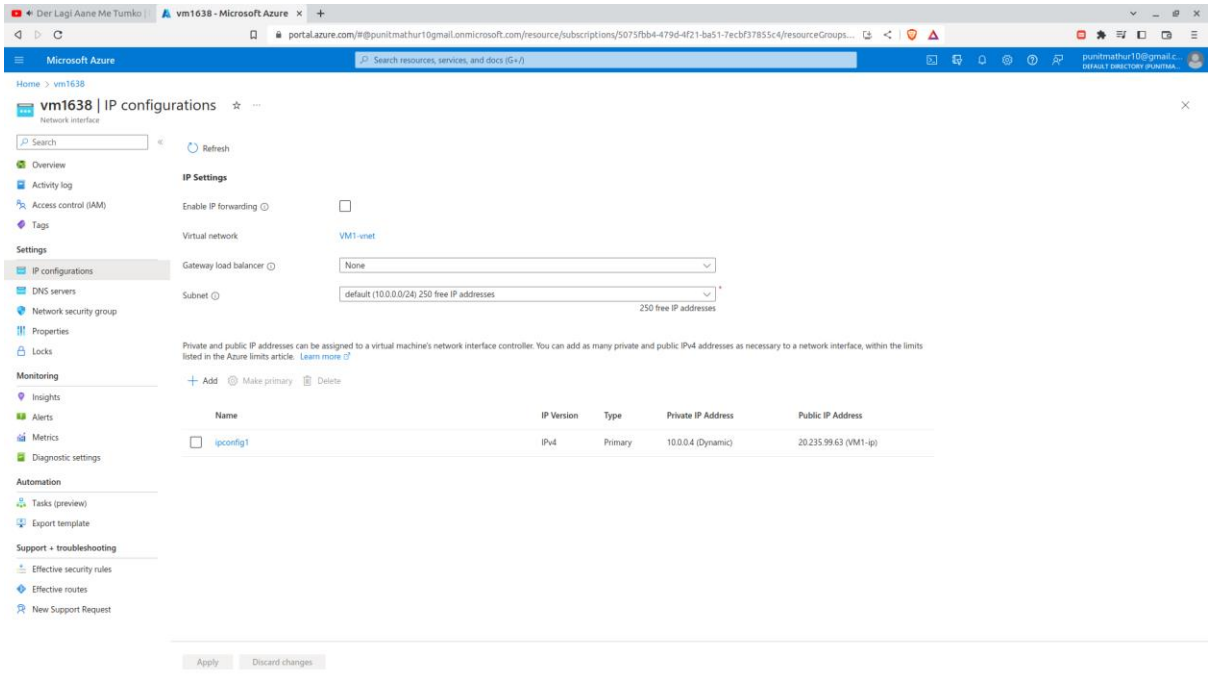
Static IP :

A static IP (Internet Protocol) address is a fixed and unchanging numerical label assigned to a device or computer connected to a network, such as the internet. In contrast to a dynamic IP address, which can change periodically, a static IP address remains constant for the device it is assigned to.

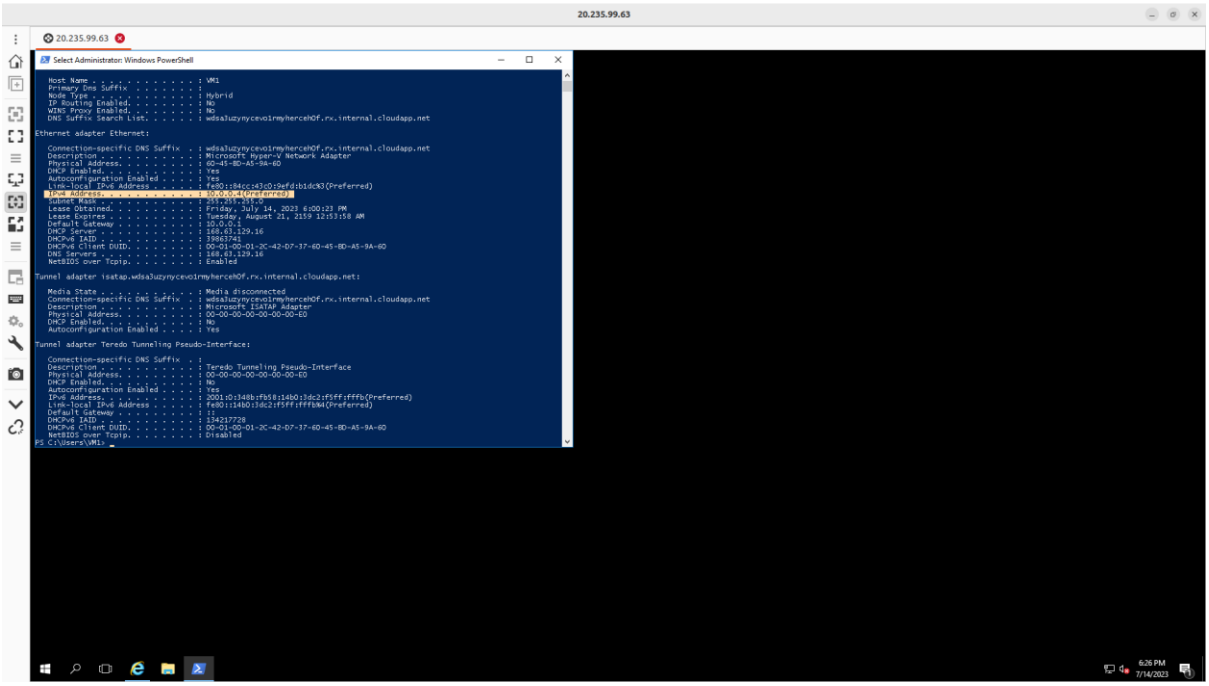
Now to allocate static IP to a VM, we will follow the following steps :-

Step 1 - IP configuration

Now move into the created VM in its networking section select network interface and click on **vm1638.** Now in vm1638 move to its IP configurations section here we see that default allocation is dynamic.

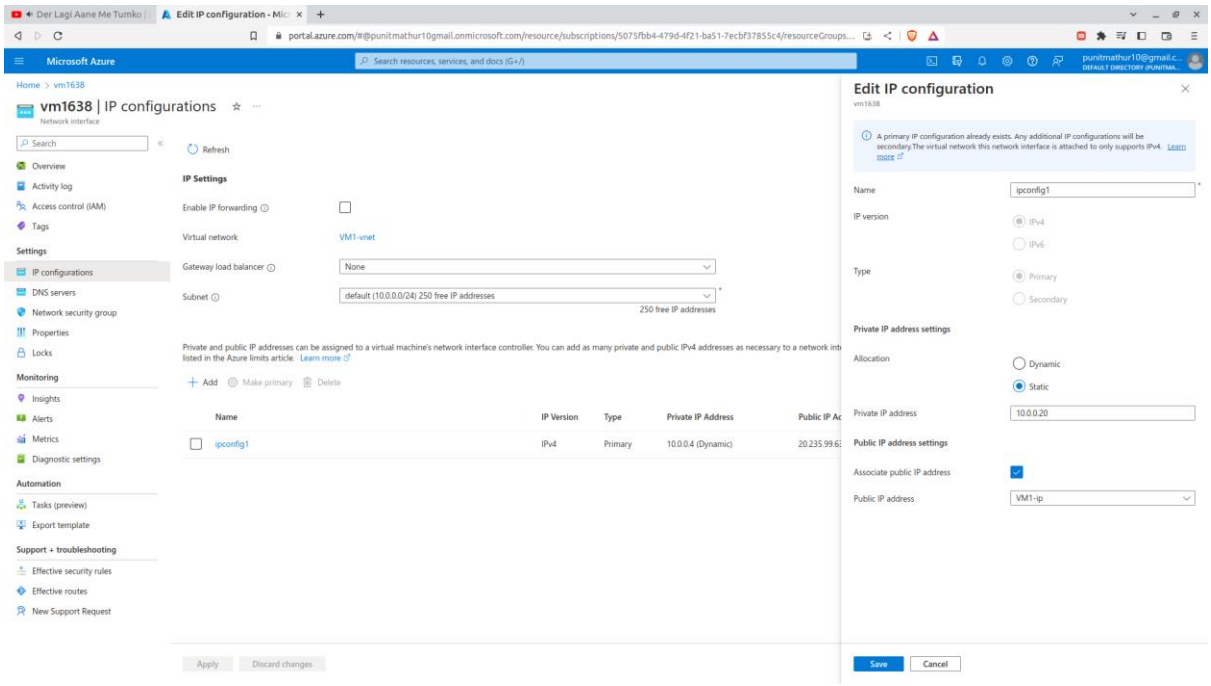


Now we will move to the powershell of VM to check its IPV4 address.

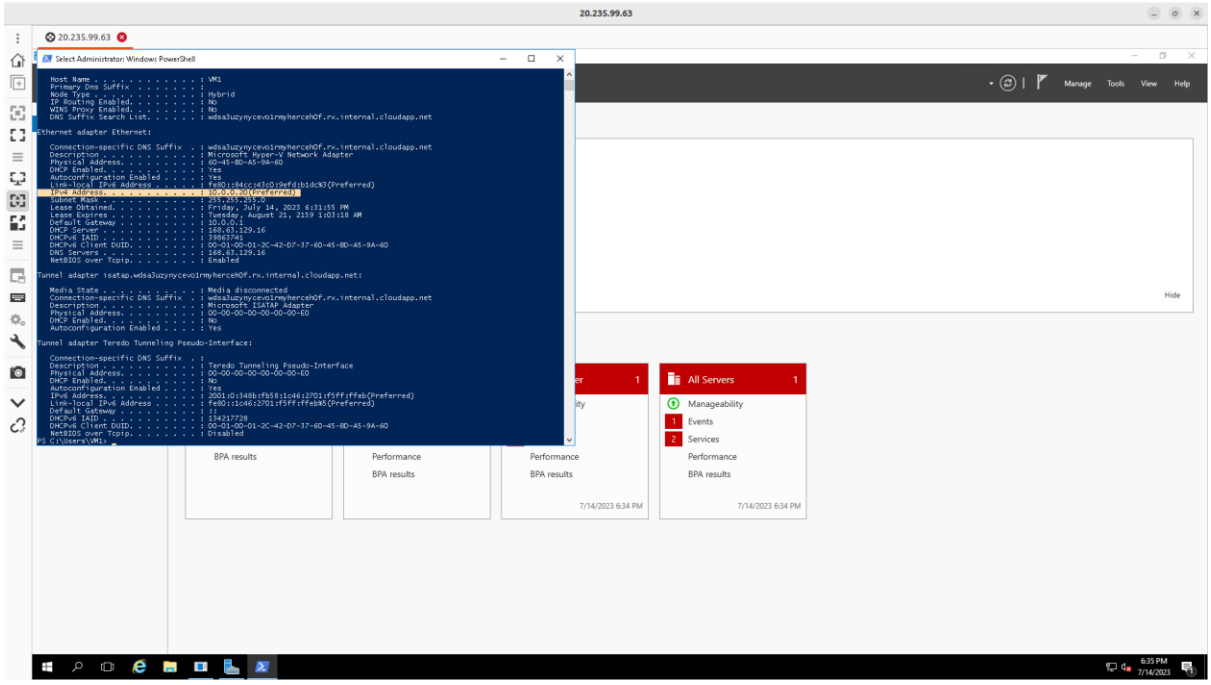


Step 2 - To make IP Address Static.

For making the IP Address Static we will simply follow steps in next screenshot.



After Following these steps we can see that IPV4 Address changed to 10.0.0.20 which is an Static IP Address.

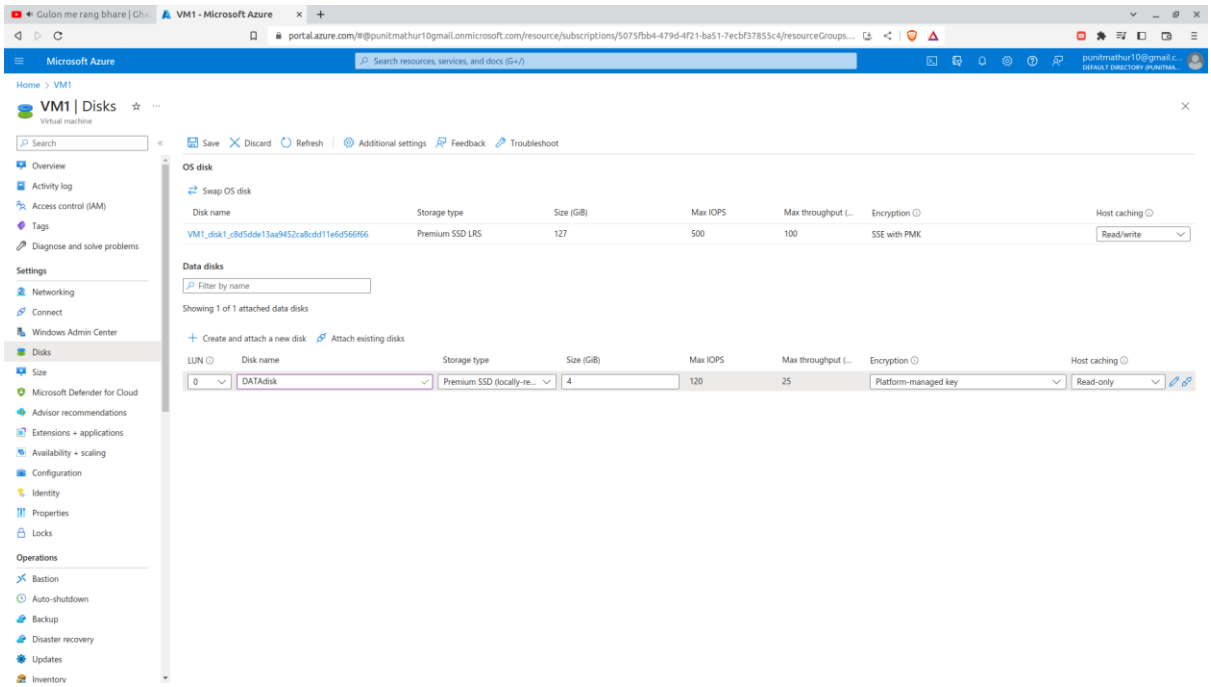


We have successfully allocated static IP.

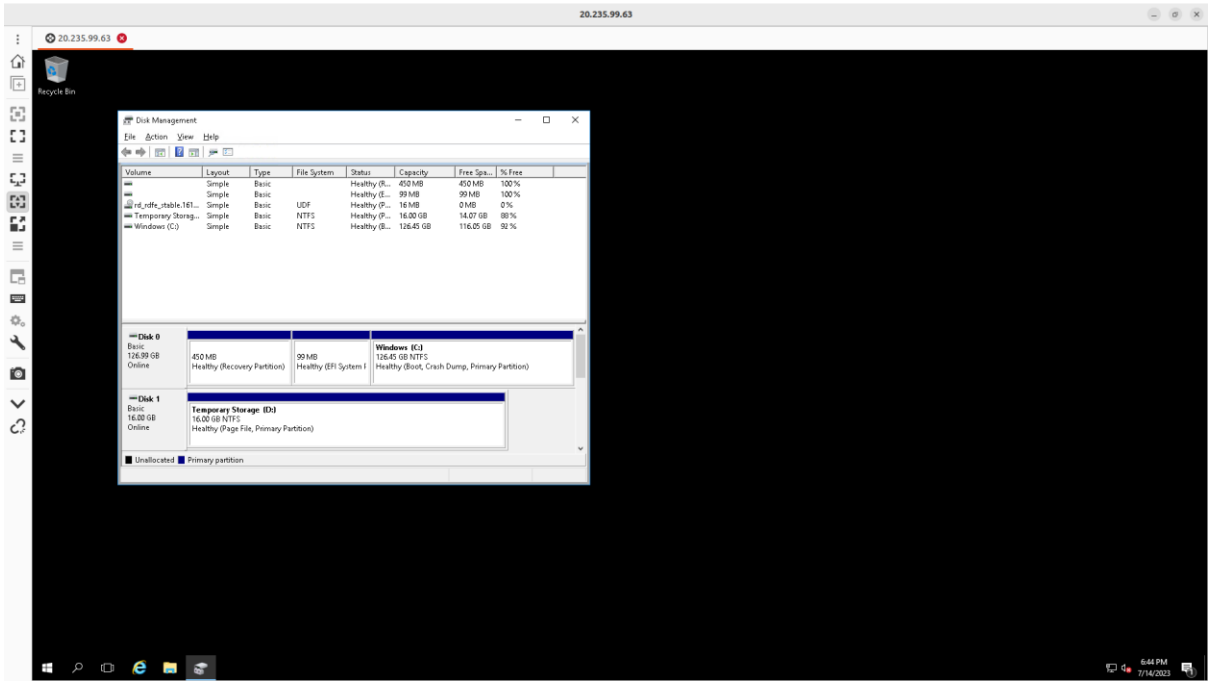
Task 3 - To attach Data Disk To VM.

Steps : **Go to VM1 > DISKS > CREATE & ATTACH A DISK > SET DETAILS > SAVE.**

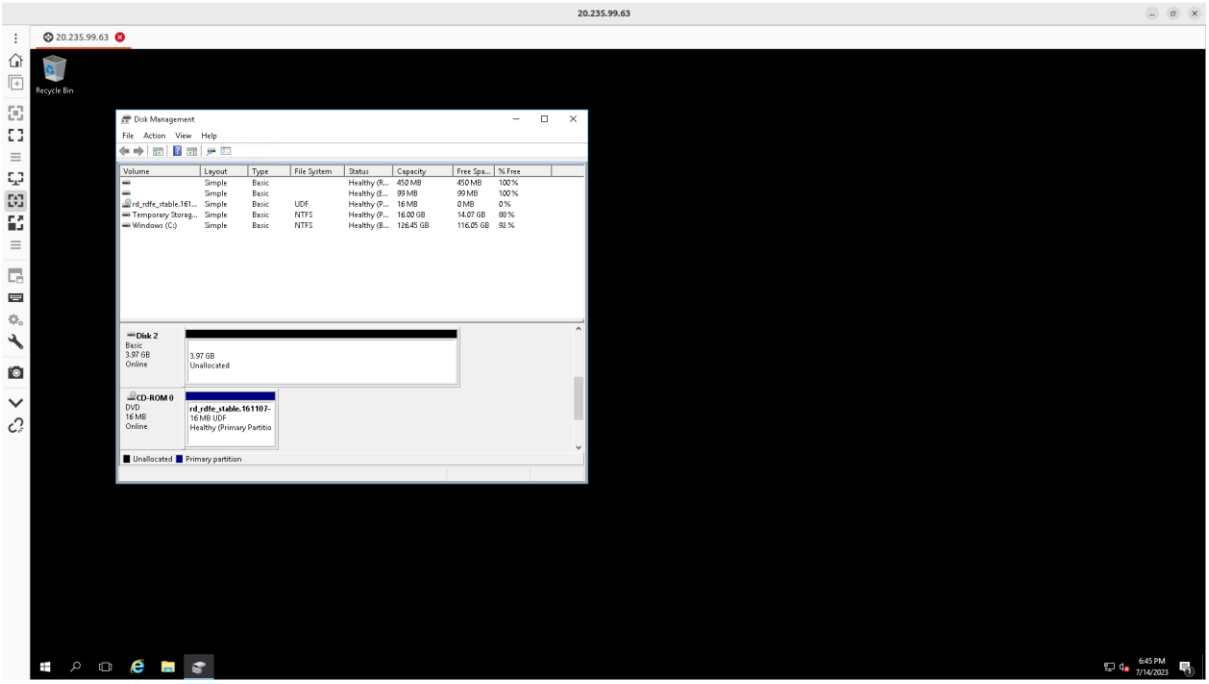
Disk name: DATA disk, Storage type: Premium SSD, Size: 4, Host: Read Only.



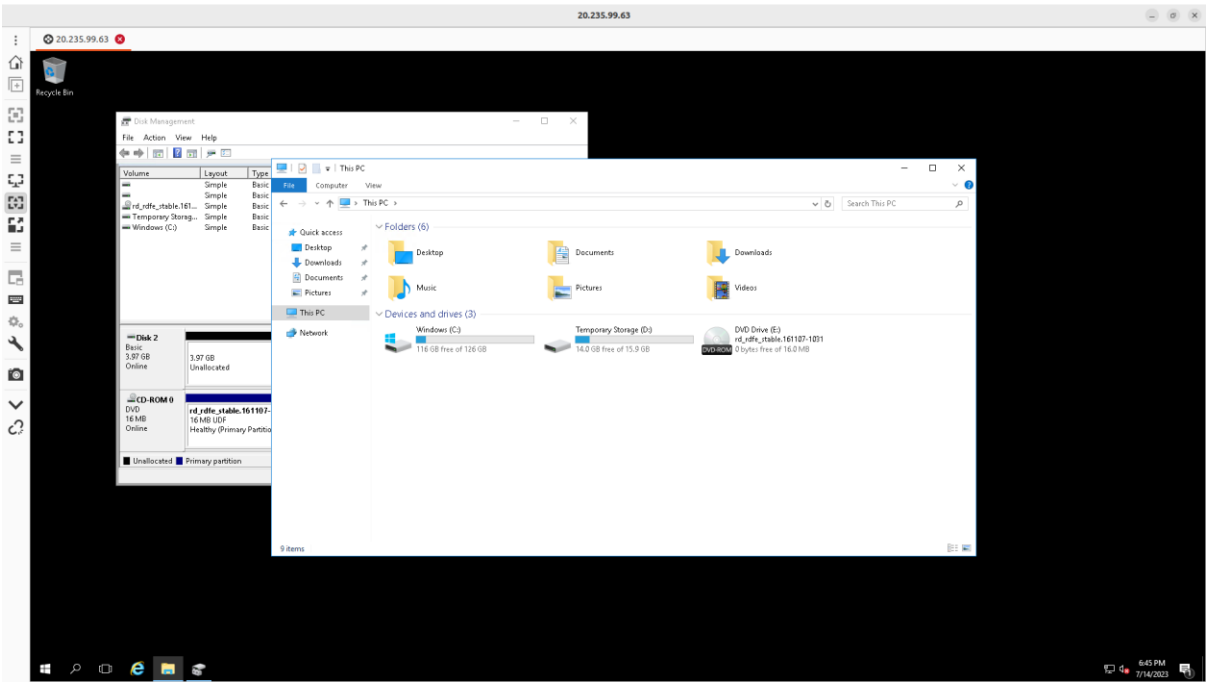
After creation of Data Disk, Open VM using RDP then search Create & Format Hard disk Partitions.

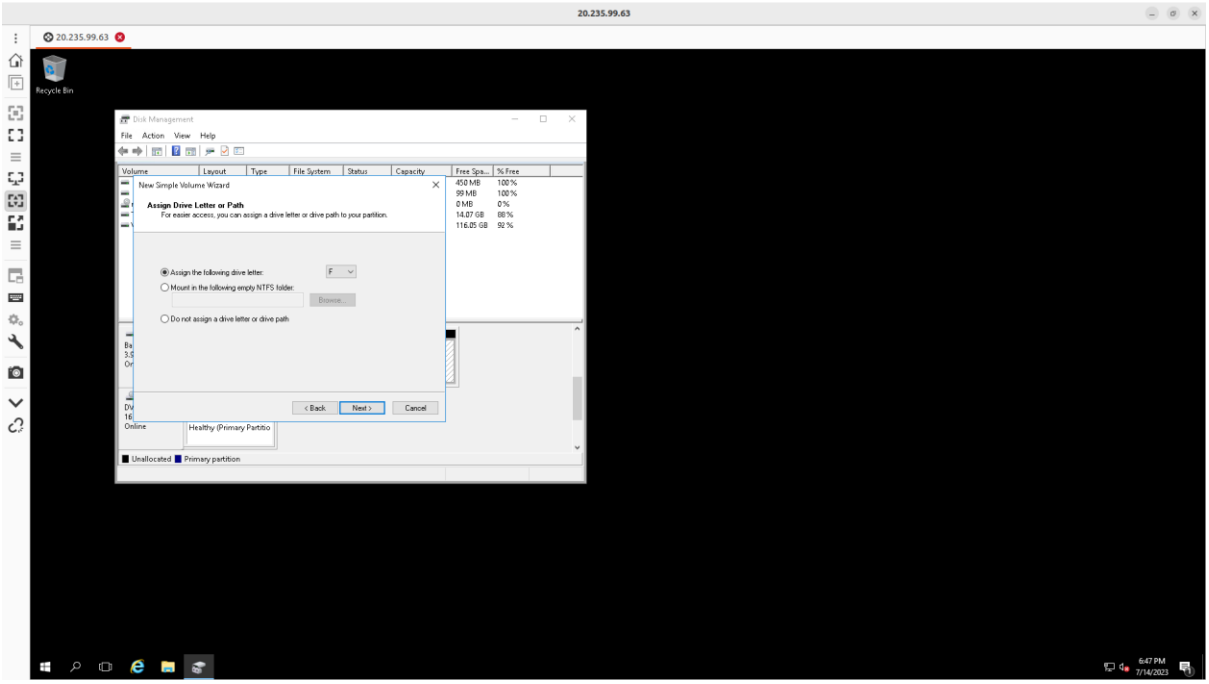


Here we can see that Disk 2 is Unallocated :

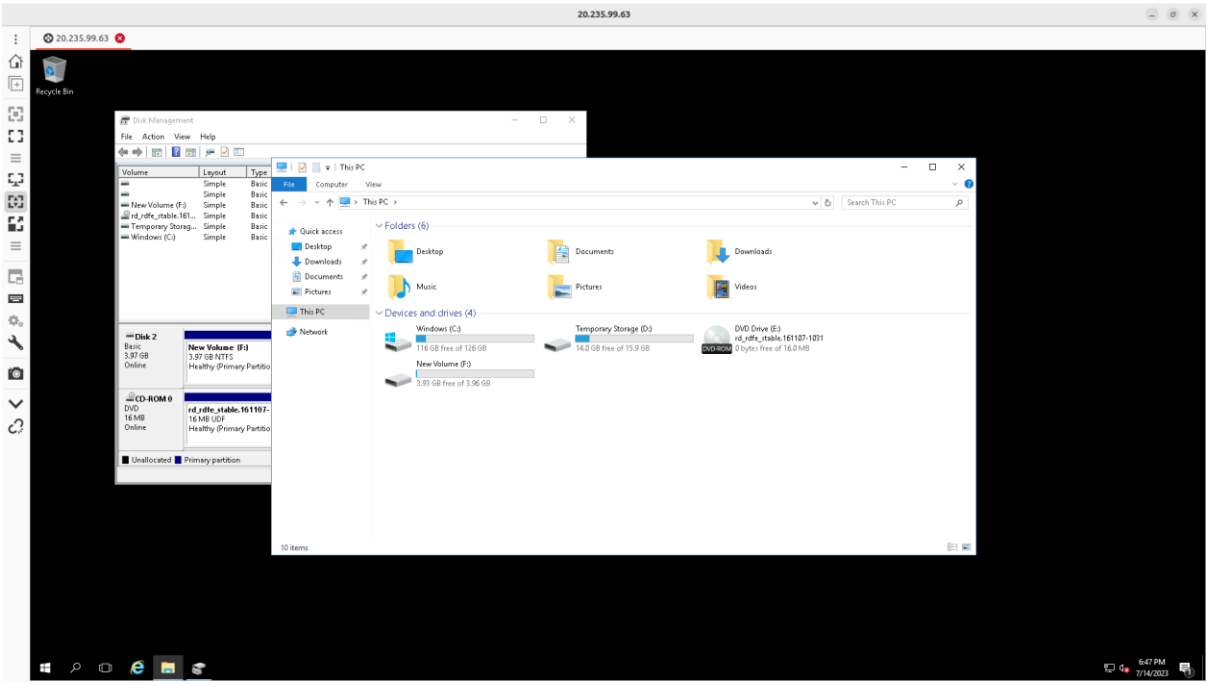


So to make allocation is disk 2 follow the steps : Go to Disk Management > **RIGHT CLICK** on **DISK 2** > Select **NEW SIMPLE VOLUME >** NEXT > FINISH.





Disk 2 is allocated as **new volume F** :



Task 3 Completed

Task 4 - Hyper-V in Azure.

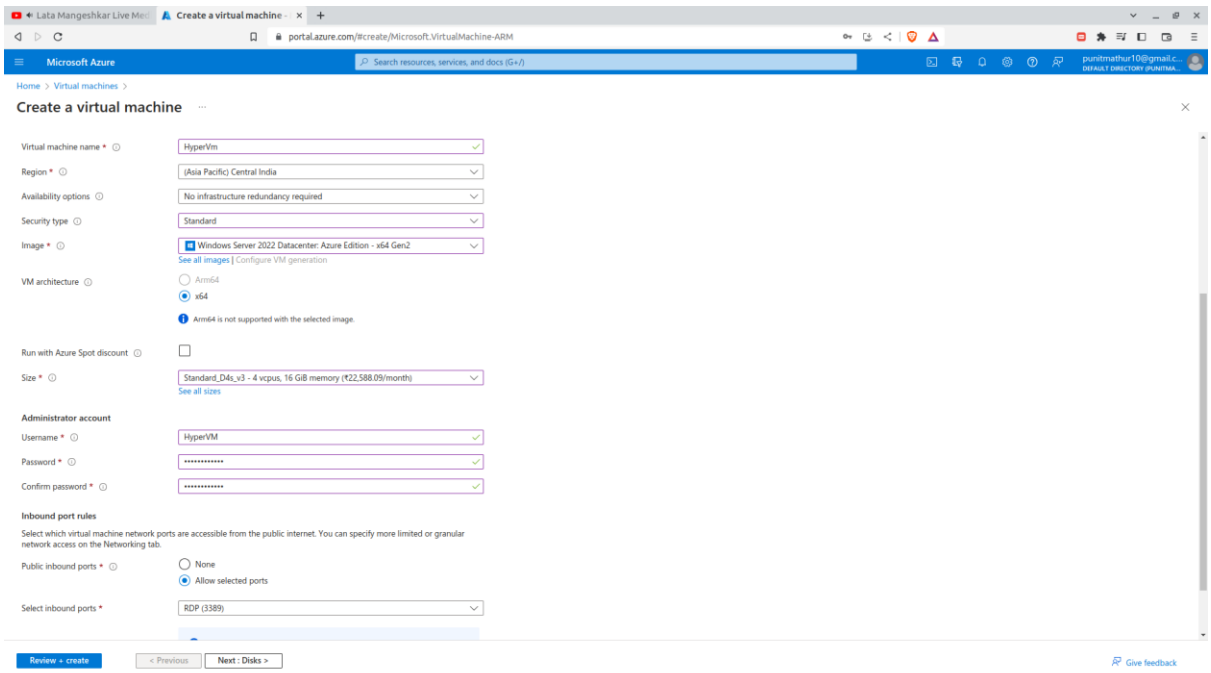
Hyper-V :

Hyper-V in Azure refers to the capability of running virtual machines (VMs) with the Hyper-V hypervisor on the Azure cloud platform. Hyper-V is a native hypervisor developed by Microsoft, which allows you to create and manage multiple virtual machines on a single physical host.

When you use Hyper-V in Azure, you have the option to deploy and run virtual machines as Azure Virtual Machines with the Hyper-V technology underlying their virtualization. This provides a fully isolated and customizable environment for running different operating systems and applications.

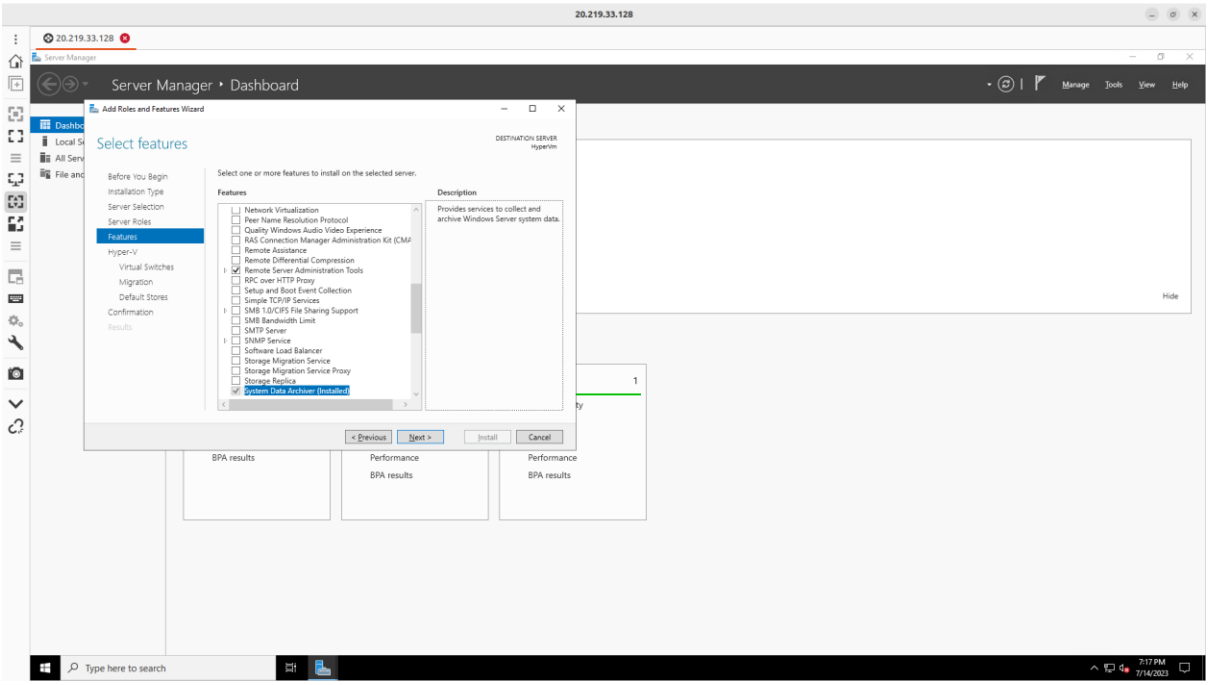
Now to install a Hyper-V Follow the instructions :

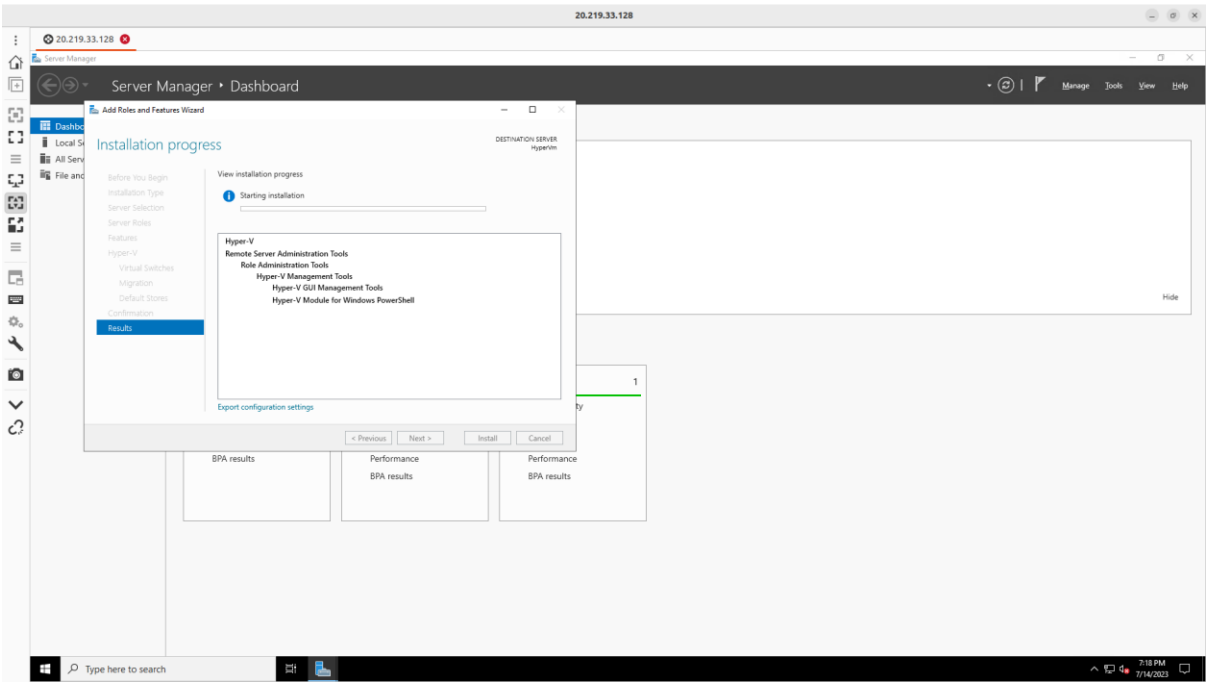
Create a virtual machine :

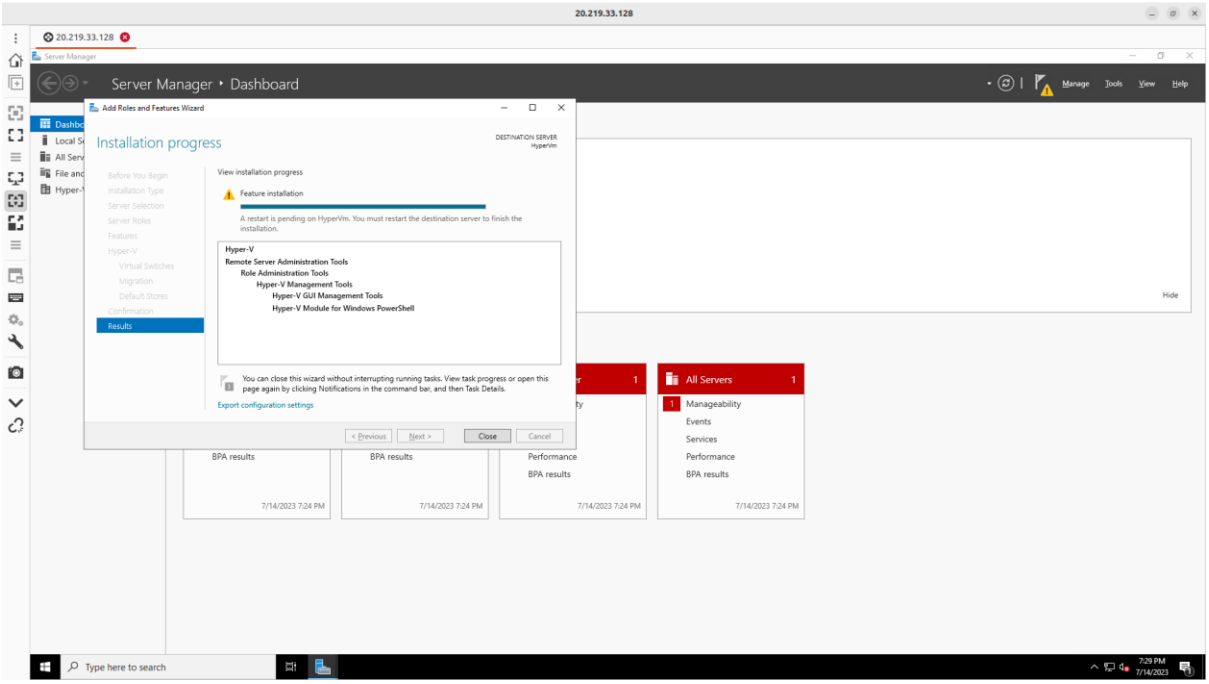


Open this VM using RDP

Open the server manager dashboard in this VM. Now in Server Roles select Hyper-V and then install it. Just follow the steps same as below screenshots.



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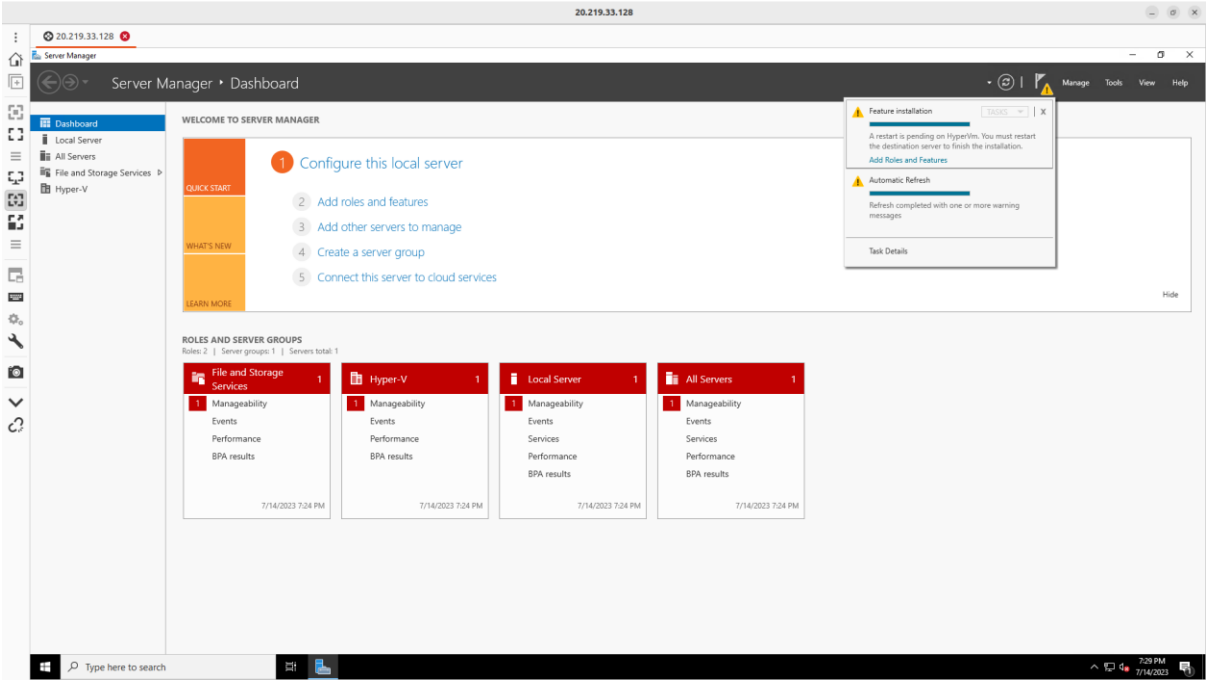
Server Manager
Server Manager • Dashboard
Manage
Tools
View
Help
Add Roles and Features Wizard
Installation progress
DESTINATION SERVER
HyperVm
View installation progress
Feature installation
A restart is pending on HyperVm. You must restart the destination server to finish the installation.
Hyper-V
Remote Server Administration Tools
Role Administration Tools
Hyper-V Management Tools
Hyper-V GUI Management Tools
Hyper-V Module for Windows PowerShell
You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.
Export configuration settings
< Previous
Next >
Close
Cancel
Results
All Servers
Manageability
Events
Services
Performance
BPA results
7/14/2023 7:24 PM
Hide
Type here to search
7:29 PM
7/14/2023


20.219.33.128
Server Manager
Server Manager • Dashboard
Manage
Tools
View
Help
Dashboard
Local Server
All Servers
File and Storage Services
Hyper-V
WELCOME TO SERVER MANAGER
QUICK START
WHAT'S NEW
LEARN MORE
1 Configure this local server
2 Add roles and features
3 Add other servers to manage
4 Create a server group
5 Connect this server to cloud services
Feature installation
A restart is pending on HyperVm. You must restart the destination server to finish the installation.
Add Roles and Features
Automatic Refresh
Refresh completed with one or more warning messages
Task Details
Hide
ROLES AND SERVER GROUPS
Roles: 2 | Server groups: 1 | Servers total: 1
File and Storage Services
Hyper-V
Local Server
All Servers
Manageability
Events
Services
Performance
BPA results
7/14/2023 7:24 PM
Type here to search
7:29 PM
7/14/2023

Now after the restart Hyper-V is enabled :