Lab Manual- Administrating Azure Virtual Machine – Windows Admin Center

Contents

1. Objective

Windows Admin Center in the Azure portal provides the essential set of management tools for managing Windows Server in a single Azure VM:
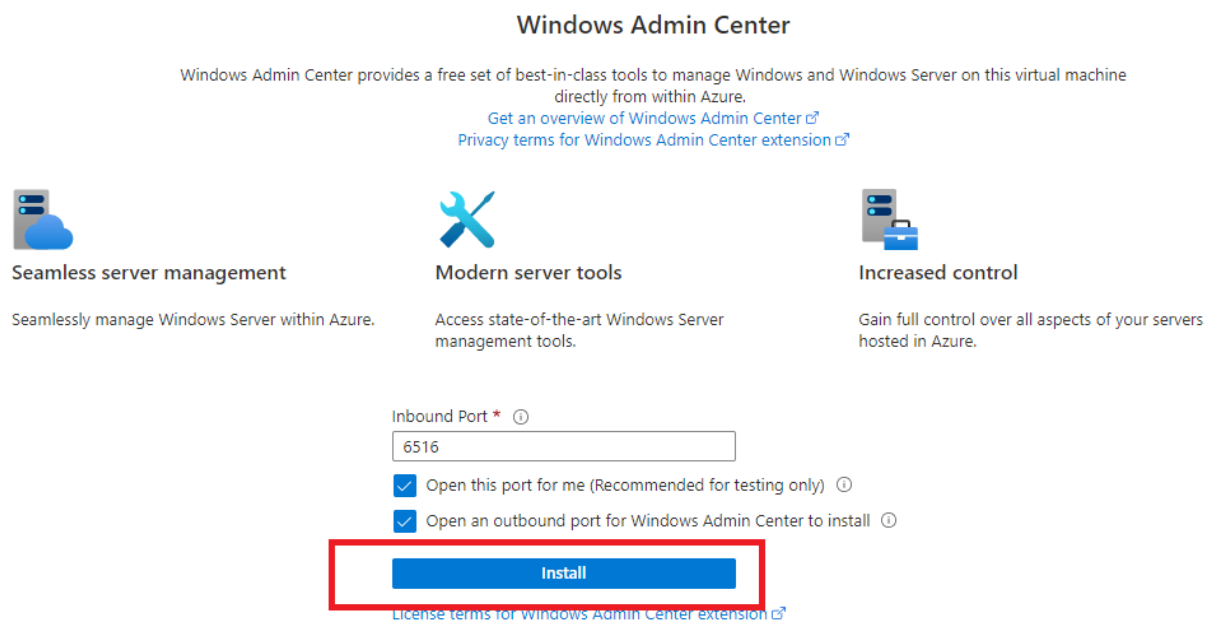
- Certificates
- Devices
- Events
- Files and file sharing
- Firewall
- Installed apps
- Local users and groups
- Performance Monitor
- PowerShell
- Processes
- Registry
- Remote Desktop
- Roles and features
- Scheduled tasks
- Services
- Storage
- Updates

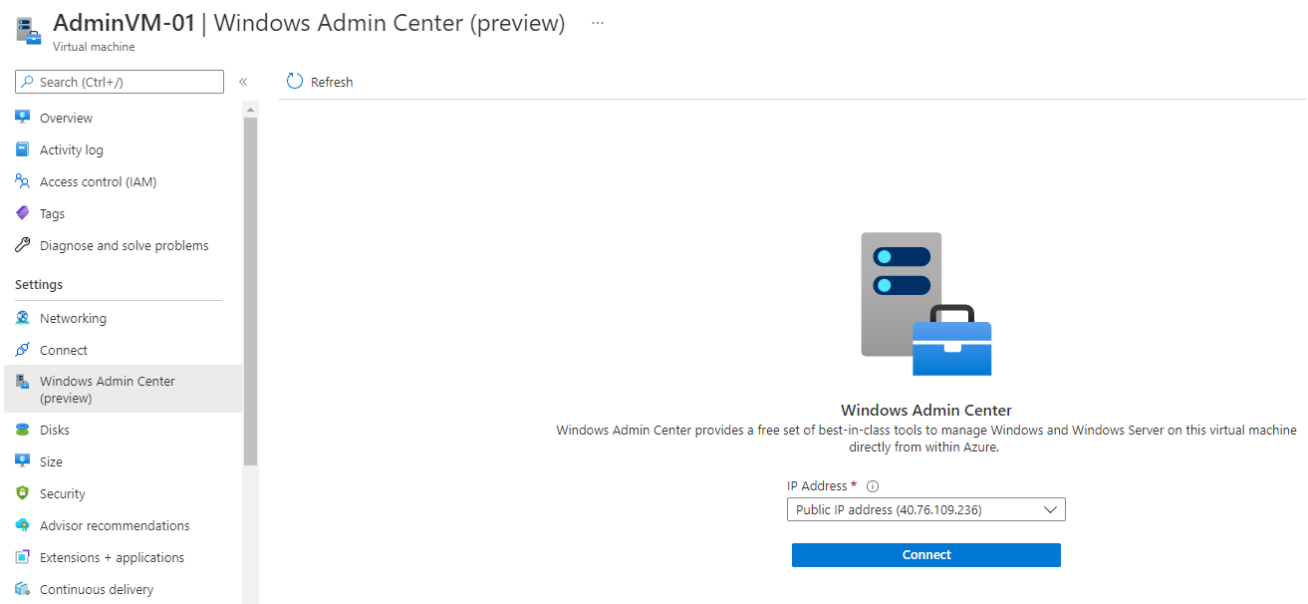# 2. Lab 1: Installing the Windows Admin Center extension package in the Azure VM through the Azure portal

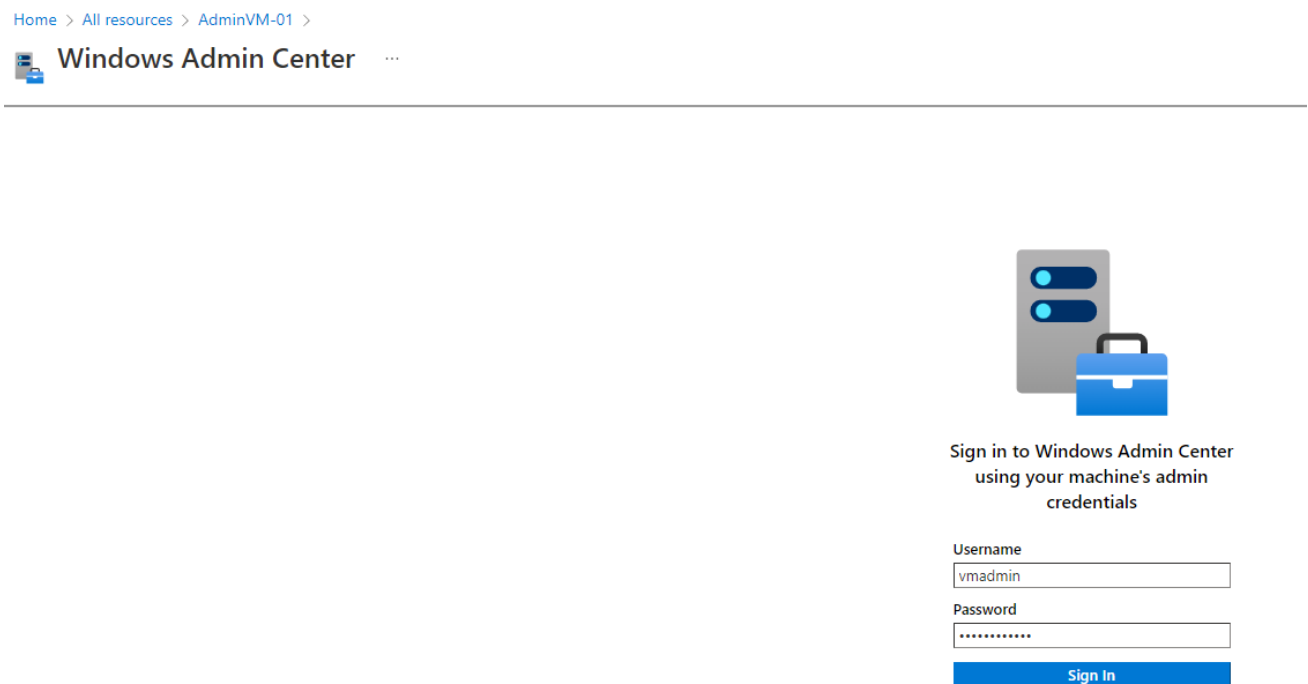1. In in the Virtual Machine setting , click Windows Admin Centre
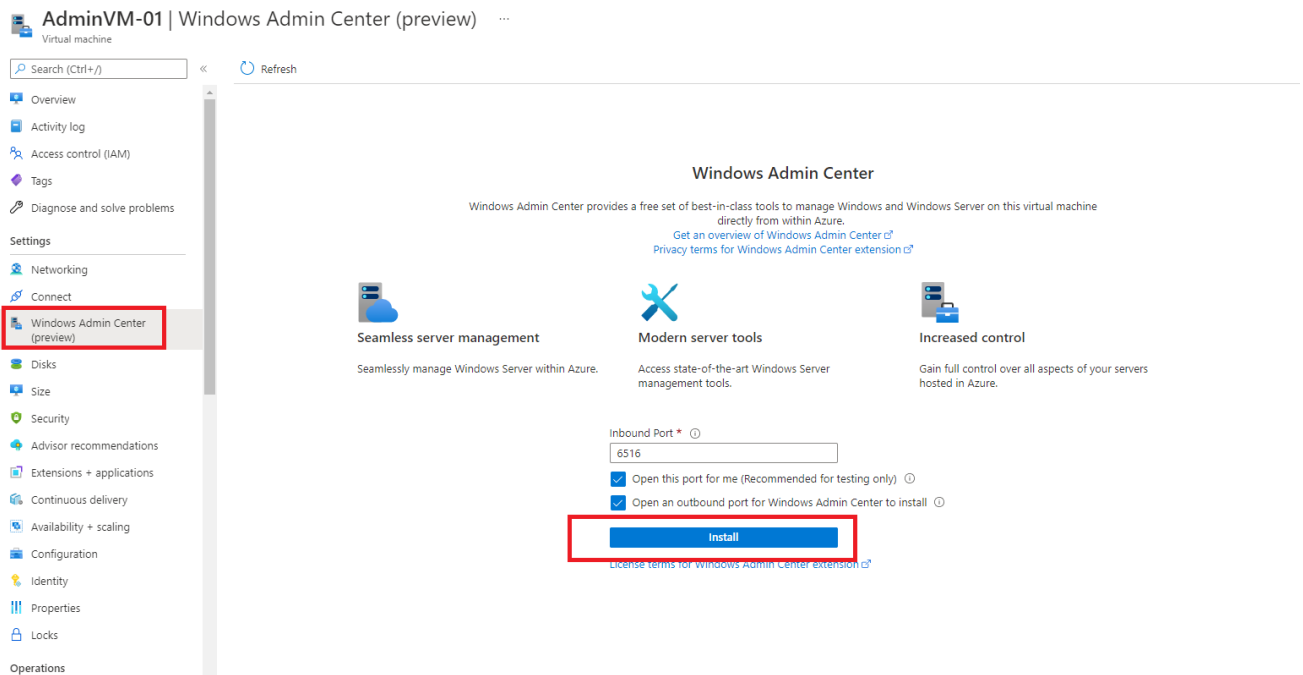
2. Select **Open this port for me** and click **install**

3. It take few minutes and once done Click **Connect**

AdminVM-01 | Windows Admin Center (preview)
Virtual machine

Search (Ctrl+/)

Refresh

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

Settings
- Networking
- Connect
- Windows Admin Center (preview)
- Disks
- Size
- Security
- Advisor recommendations
- Extensions + applications
- Continuous delivery

Windows Admin Center

Windows Admin Center provides a free set of best-in-class tools to manage Windows and Windows Server on this virtual machine directly from within Azure.

IP Address *
Public IP address (40.76.109.236)

Connect

4. On the next screen, the wizard asks you the admin user credentials of the VM. The below screenshot shows this sign-in page. Type VM username and Password and click **Sign-in**

Home > All resources > AdminVM-01 >

Windows Admin Center   ...

Sign in to Windows Admin Center using your machine's admin credentials

Username
vmadmin

Password
....

Sign In

5. It take less than minute to initialize

Windows Admin Center ...

Windows Admin Center

Gathering environment info—this may take a few moments...

6. Now, your VM is connected to the Windows Admin Center, and you can view various management tools on the left side. On clicking each tool, you will get the relevant details on the right side. Some of the screenshots shown below are given for example.
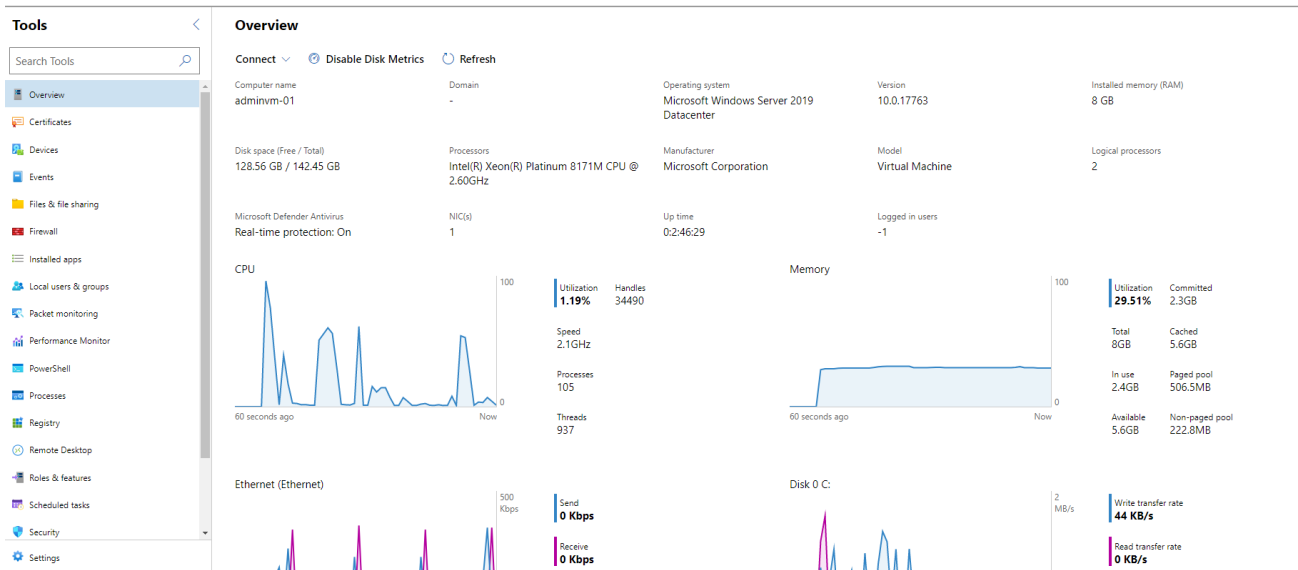
3.   Lab 2: Explore Management Features of Admin Center

1.   Overview

This page shows the complete details of the OS such as OS version, Installed RAM, Available Disk space, Processor details, CPU Utilization, Memory usage, and Ethernet activity. The below screenshot shows these parameters

Windows Admin Center   ...

Tools		Devices	
Search Tools		⊕ Disable device ⊡ Update driver	16 items
		Name	Status
📄 Overview		> Computer	⊘ Enabled: 1
🖼 Certificates		> Disk drives	⊘ Enabled: 2
📊 Devices		> Display adapters	⊘ Enabled: 1
🖥 Events		> Human interface devices	⊘ Enabled: 1
📁 Files & file sharing		> Keyboards	⊘ Enabled: 1
🔺 Firewall		> Mice and other pointing devices	⊘ Enabled: 1
☰ Installed apps		> Monitors	⊘ Enabled: 1
👥 Local users & groups		> Network adapters	⊘ Enabled: 4
📶 Performance Monitor		> Other devices	⊗ Critical: 1
🖥 PowerShell		> Ports (COM & LPT)	⊘ Enabled: 1
🔲 Processes		> Printer queues	⊘ Enabled: 3
🔳 Registry		> Processors	⊘ Enabled: 1
⊙ Remote Desktop		> Software devices	⊘ Enabled: 4
🖥 Roles & features		> Storage controllers	⊘ Enabled: 3
⚙ Settings		> Storage volumes	⊘ Enabled: 5
		> System devices	⊘ Enabled: 23
		Properties	

2.   Devices

Shows details of all the devices available in the VM. You can disable or update the driver of these devices from the Windows Admin center portal itself. You can expand each component and get the detailed properties of each device.

3.   Events

You can view the events generated by the Windows log & the Application and services log. You can choose each event and get a detailed description of the event. The below screenshot provides a sample event with a description.

Windows Admin Center ...

Tools

Search Tools

- Overview
- Certificates
- Devices
- **Events**
- Files & file sharing
- Firewall
- Installed apps
- Local users & groups
- Performance Monitor
- PowerShell
- Processes
- Registry
- Remote Desktop
- Roles & features
- Settings

Events

- Administrative Logs
- ∨ Windows Logs
  - Application
  - Security
  - System
  - ForwardedEvents
  - Setup
- ∨ Applications and Services Logs
  - Hardware Events
  - > Intel
  - Internet Explorer
  - Key Management Service
  - > Microsoft
  - Microsoft-ServerManagementExperience
  - > NIS
  - Windows Azure
  - Windows PowerShell

🗑 Clear   ↓ Export

Level
Information
Information
Information
Information
Information
Information
Information
Information
Information
Error
Information

Event 903, Microsoft-Windows-

Description   Details

The Software Protection service has stopped.

4.   File & File sharing

Users can view directories and files under each drive. Users can do all the file activities similar to file explorer in windows os. They can also do all the file-sharing activities under the File sharing tab. They can create a new share, delete a share and edit the share properties.

5. Firewall

Users can set Incoming & Outgoing firewall rules for the Windows OS from this section. Users can enable, disable or modify the firewall rule from here by selecting each of the Incoming and Outgoing rules.

6.   Installed apps

This tab shows complete details of the installed application on the Windows OS. You can uninstall or remove the application from the OS here itself.
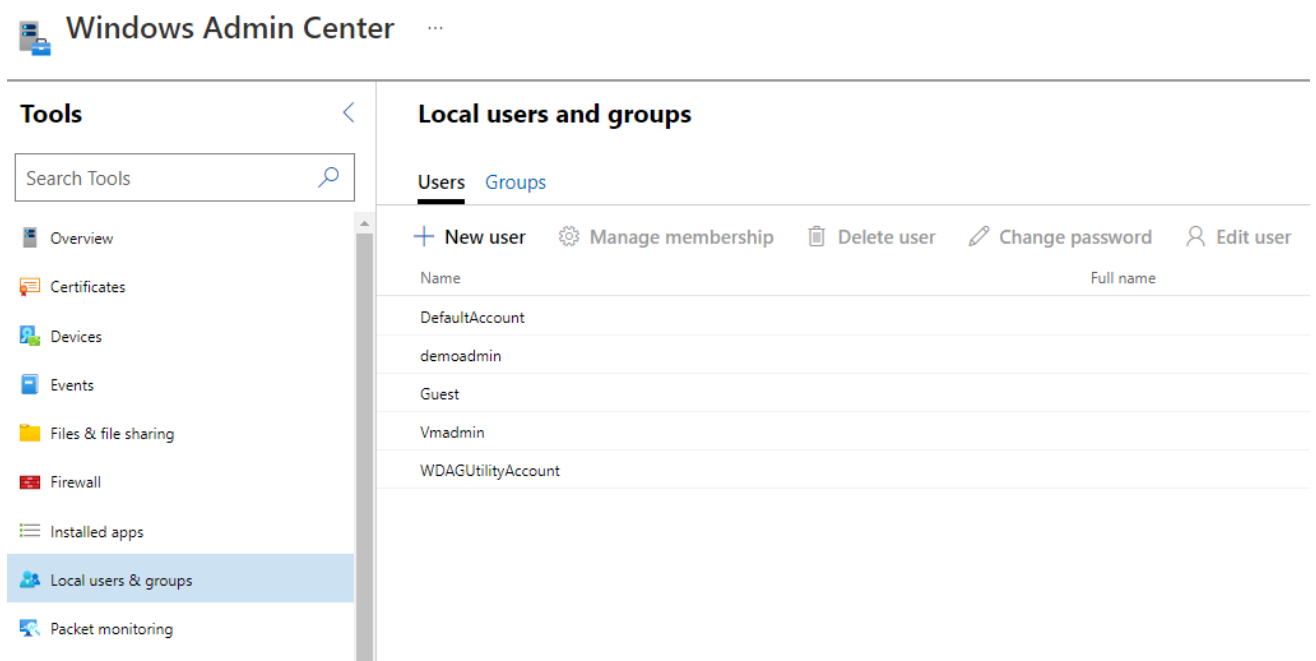

7.   Local Users and Groups

This will list all the available users (built-in and created users) of the OS and the built-in groups. Here you can create a new user or group. Can edit or remove the user or group and can change the password for a particular user.

8.   Performance Monitor

Users can view and compare performance counters for the operating system, apps, or devices in real-time.
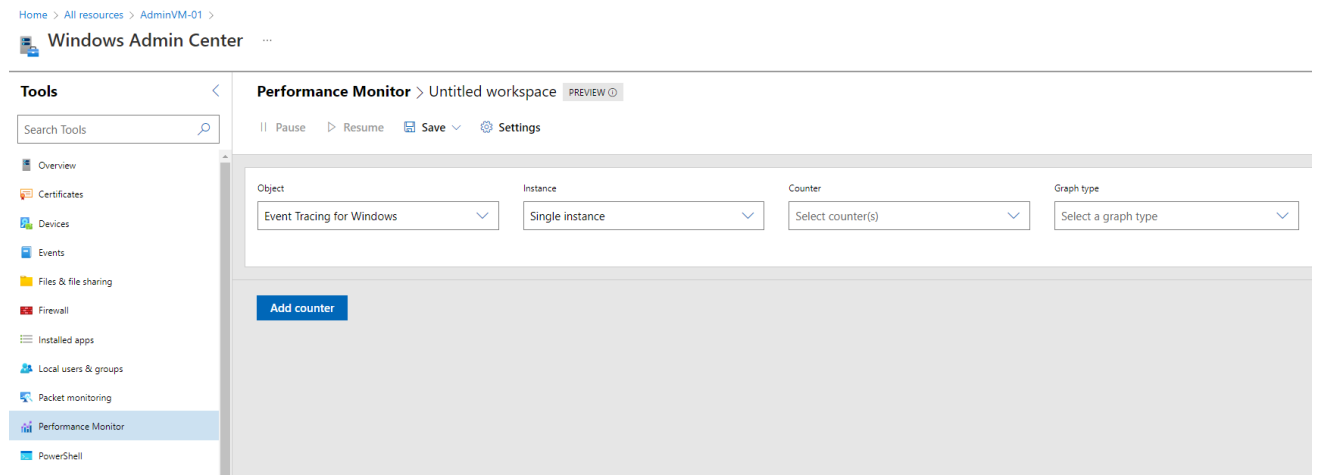
9.   Powershell

Using this, you can connect the Powershell window of the Windows OS directly, and can execute any PowerShell cmdlets on the VM

10.   Processes

Similar to task managers, you can view the running processes of the OS. You can start and end processes & find handles of each process.

11. Registry

Similar to the Regedit tool in windows, here you can traverse all the registry keys and can update the registry key value.

12. Remote Desktop

Users can directly connect the server using RDP protocol after providing the admin user credentials.
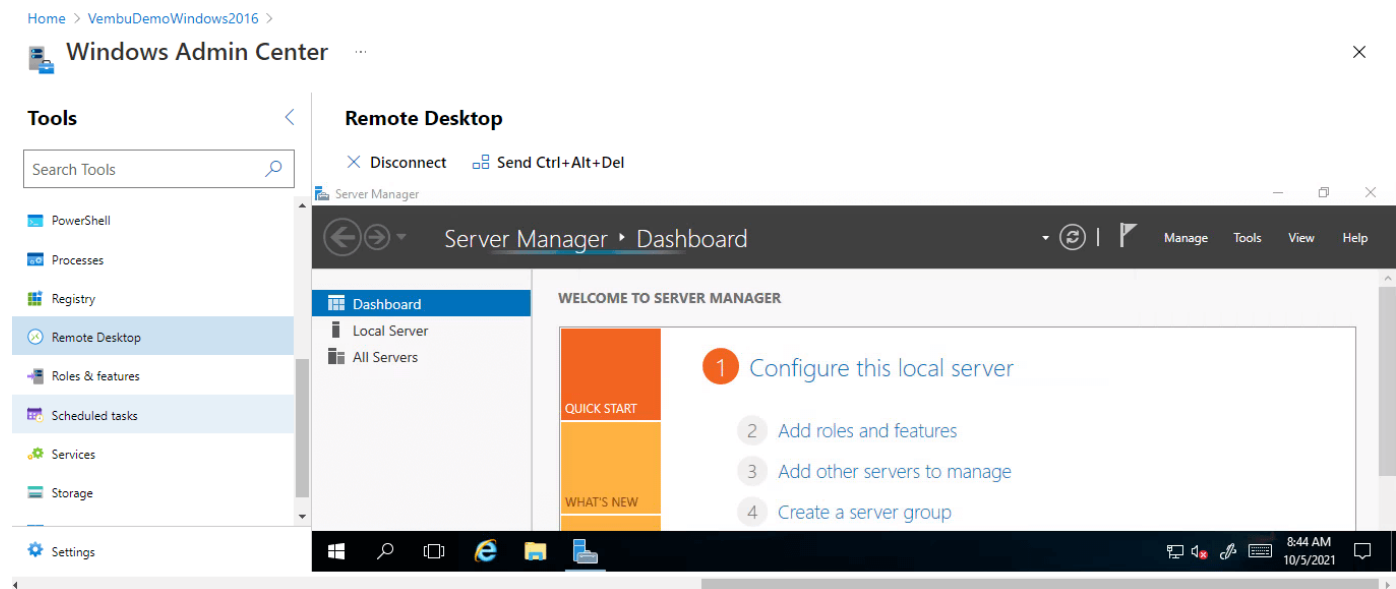
13. Roles and features

Users can install & uninstall roles and features for the OS.

Tools

Search Tools

Files & file sharing
Firewall
Installed apps
Local users & groups
Performance Monitor
PowerShell
Processes
Registry
Remote Desktop
Roles & features
Scheduled tasks
Services
Storage

Roles and features

+ Install   — Uninstall   265 items   1 selected ✕ ↻

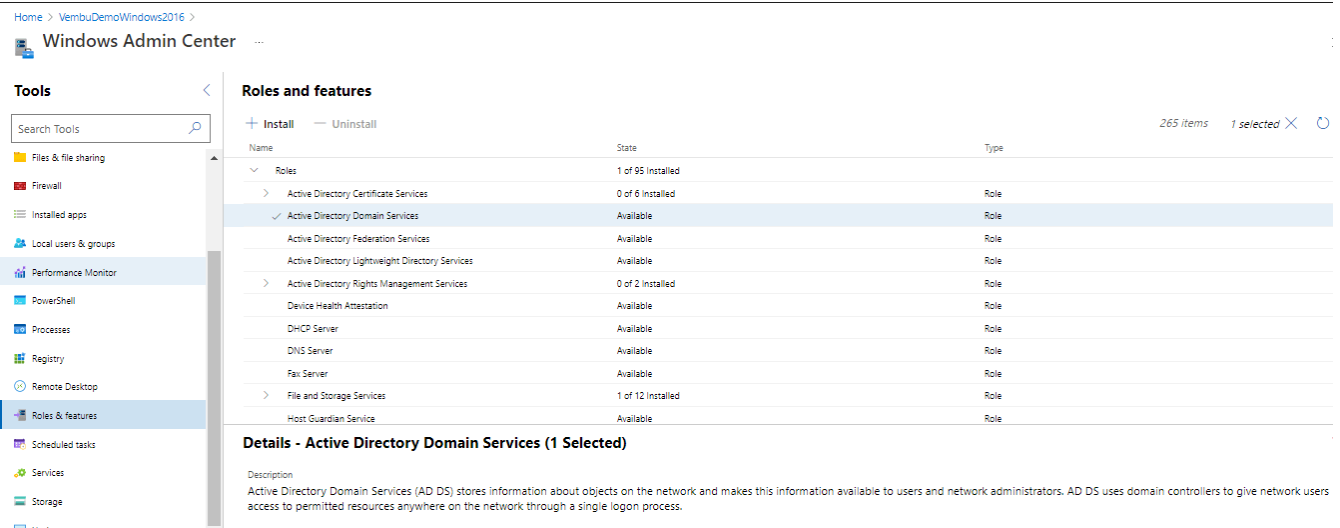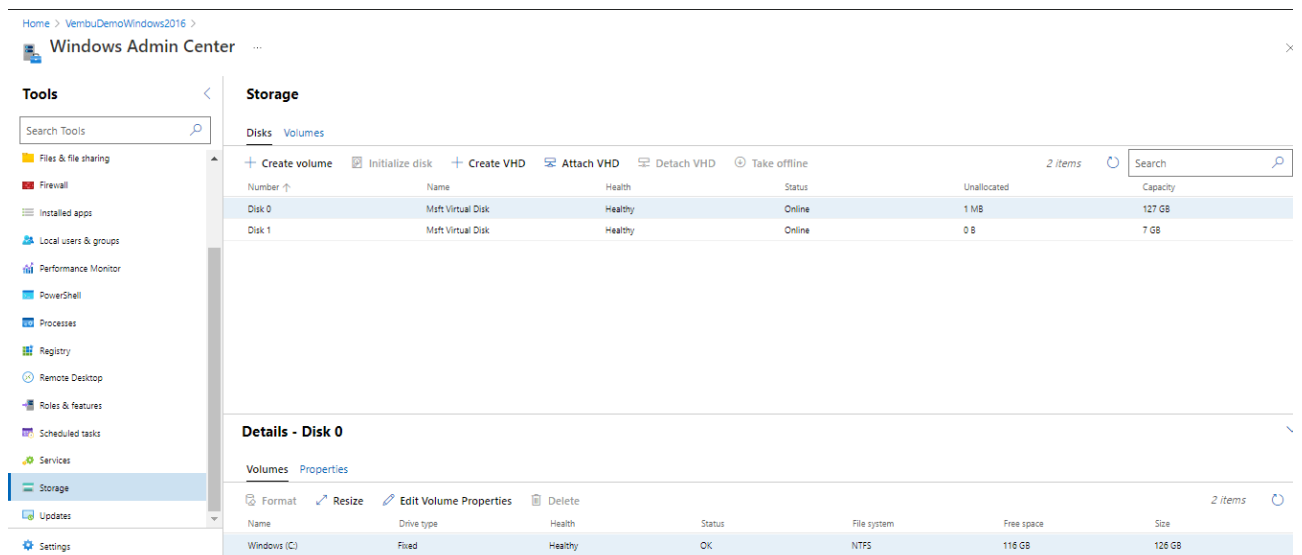| Name	State	Type
⌄ Roles	1 of 95 Installed	
❯ Active Directory Certificate Services	0 of 6 Installed	Role
✓ Active Directory Domain Services	Available	Role
Active Directory Federation Services	Available	Role
Active Directory Lightweight Directory Services	Available	Role
❯ Active Directory Rights Management Services	0 of 2 Installed	Role
Device Health Attestation	Available	Role
DHCP Server	Available	Role
DNS Server	Available	Role
Fax Server	Available	Role
❯ File and Storage Services	1 of 12 Installed	Role
Host Guardian Service	Available	Role

Details - Active Directory Domain Services (1 Selected)

Description
Active Directory Domain Services (AD DS) stores information about objects on the network and makes this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.

14.   Storage

Users can perform all the disk and storage operations. One can create volume, create, attach and detach VHD, can format and resize the disk volumes, etc.

Tools

Search Tools

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Installed apps
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Performance Monitor
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Storage
Updates
Settings

Storage

Disks Volumes

+ Create volume   ⬚ Initialize disk   + Create VHD   ⯗ Attach VHD   ⯗ Detach VHD   ⊕ Take offline   2 items ↻   Search

Number ↑	Name	Health	Status	Unallocated	Capacity
Disk 0	Msft Virtual Disk	Healthy	Online	1 MB	127 GB
Disk 1	Msft Virtual Disk	Healthy	Online	0 B	7 GB

Details - Disk 0

Volumes Properties

⬚ Format   ✎ Resize   ✎ Edit Volume Properties   🗑 Delete   2 items ↻

Name	Drive type	Health	Status	File system	Free space	Size
Windows (C:)	Fixed	Healthy	OK	NTFS	116 GB	126 GB

15.   Updates

Shows available updates and updated history. Users can initiate installing Windows security updates and patches from here.

16.   Settings

Here users can configure file share SMB server, Environment variables, and Power configuration for the Windows OS.

4.   Conclusion:

Windows Admin Center in Azure unlocks incredible capabilities for the Azure portal by providing the user with an interface to manage Windows Server virtual machines.

By default, the Azure portal provides a singular view for virtual machine management and the essential elements to manage the infrastructure. With the addition of Windows Admin Center in Azure, we have supplemented this great management experience with additional opportunities such as an enhanced view of virtual machine usage, performance monitoring, viewing of events, and much more.

Also, it is pretty much easy to install the Windows Admin Center extender package on Azure Windows VMs and can manage the resources instantly.