

Azure IT Support Lab

Project Description

Hands-on Azure project simulating a basic IT support lab environment using VMs, networking, and file sharing.

Project Goals

- Practice core Azure services
- Understand VM deployment and networking
- Configure secure file sharing
- Test internal connectivity using ping and mapped drives

Technologies Used

- Microsoft Azure
- Windows Server 2022
- Windows 10 Pro
- PowerShell
- Remote Desktop (RDP)
- Shared Network Drive (SMB)

Lab Setup Overview

1. Azure Resources

- Resource Group: Azure-IT-Lab
- Virtual Network: IT-VNet (Subnet: 10.0.0.0/24)

2. Virtual Machines

- ServerVM: Windows Server 2022, IP 10.0.0.4, RDP enabled
- ClientVM: Windows 10 Pro, IP 10.0.0.5, RDP enabled

3. Network Configuration

- Both VMs reside in the same subnet
- Inbound security rule allows ICMP (ping)
- Verified connectivity via PowerShell ping

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4. File Sharing Test

- Created folder: C:\SharedFiles\content
- Shared with Everyone (read/write)
- Files Created:
 - * testnote.txt
 - * githublab.txt

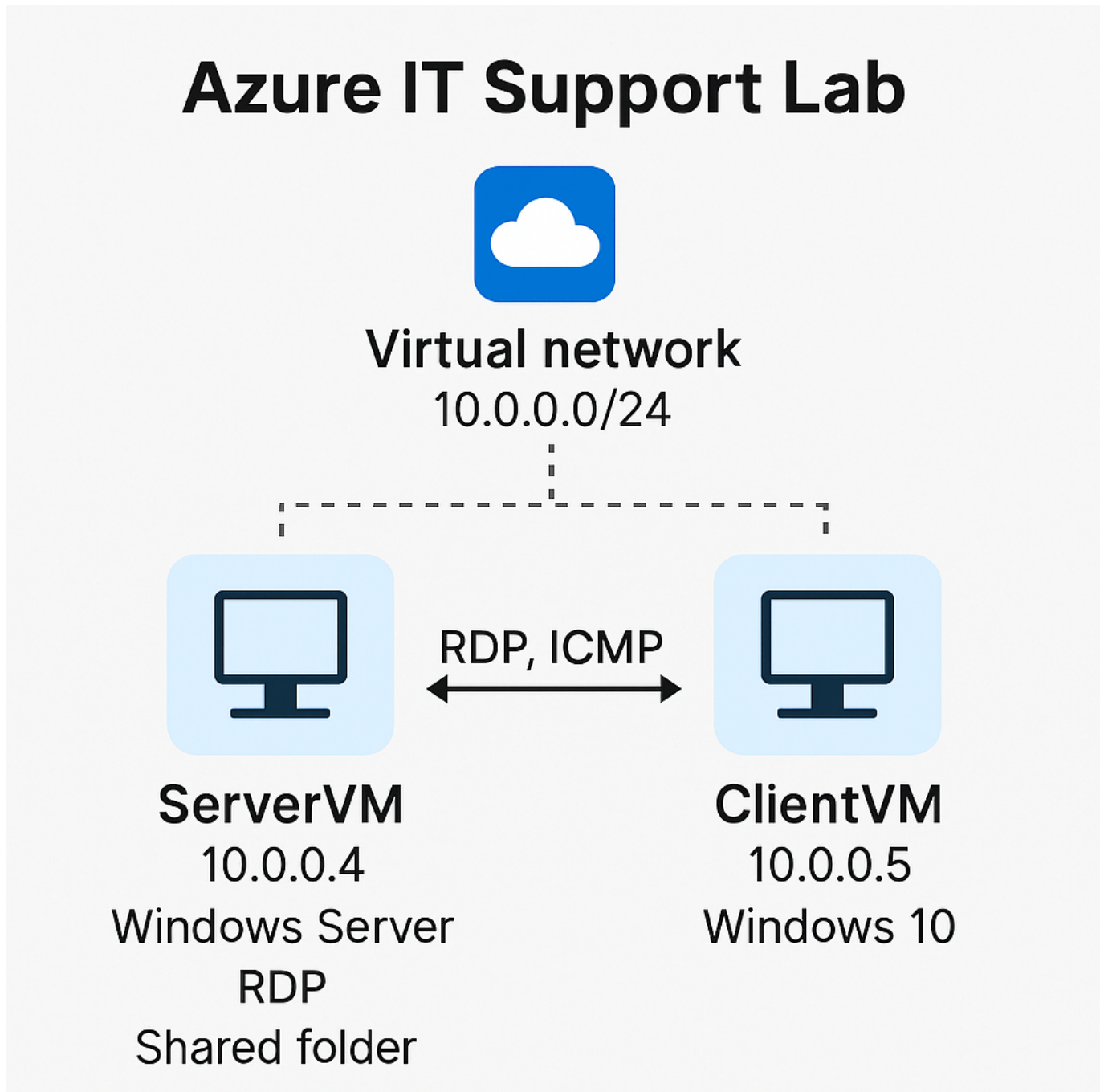
PowerShell Scripting

PowerShell Script Used:

```
Set-Content -Path "C:\SharedFiles\testnote.txt" -Value "This is a test note created from PowerShell."
```

```
Set-Content -Path "C:\SharedFiles\githublab.txt" -Value "Arsenal FC."
```

Architecture Diagram



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VMs Running

Microsoft Azure

Search resources, services, and docs (G+J)

Copilot

d.mehta92@gmail.com
DEFAULT DIRECTORY

Home > Compute infrastructure

Compute infrastructure | Virtual machines

Virtual machines

Get started

Search

Virtual machines

Get started

Overview

All resources

Infrastructure

Virtual machines

Virtual Machine Scale Set (VMSS)

Compute Fleet

Disks + images

Capacity + placement

Related services

Help

+ Create

Switch to classic

Reservations

Manage view

Refresh

Export to CSV

Open query

Assign tags

Start

Restart

Stop

Group by none

You are viewing a new version of Browse experience. Some features may be missing. Click here to access the old experience.

Filter for any field...

Subscription equals all

Type equals all

Resource Group equals all

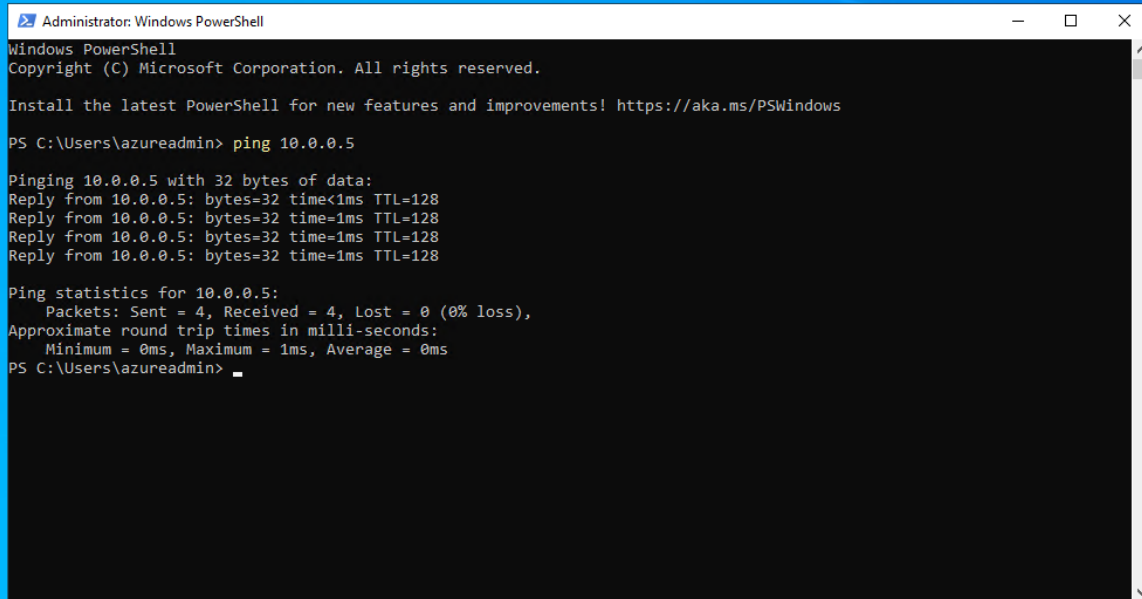
Location equals all

Add filter

<input type="checkbox"/>	Name ↑	Subscription	Resource Group	Location	Status	Operating syst...	Size	Public IP addr...	Disks	Update status
<input type="checkbox"/>	ClientVM	Pay-As-You-Go	AZURE-IT-LAB	East US	Running	Windows	Standard_DC1s...	4.227.154.73	1	Enable periodic...
<input type="checkbox"/>	ServerVM	Pay-As-You-Go	Azure-IT-Lab	East US	Running	Windows	Standard_DC1s...	57.152.32.113	1	Enable periodic...

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Successful Ping from ServerVM



```
Administrator: Windows PowerShell
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\azureadmin> ping 10.0.0.5

Pinging 10.0.0.5 with 32 bytes of data:
Reply from 10.0.0.5: bytes=32 time<1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128

Ping statistics for 10.0.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\azureadmin>
```

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ServerVM: Ping + Shared Folder

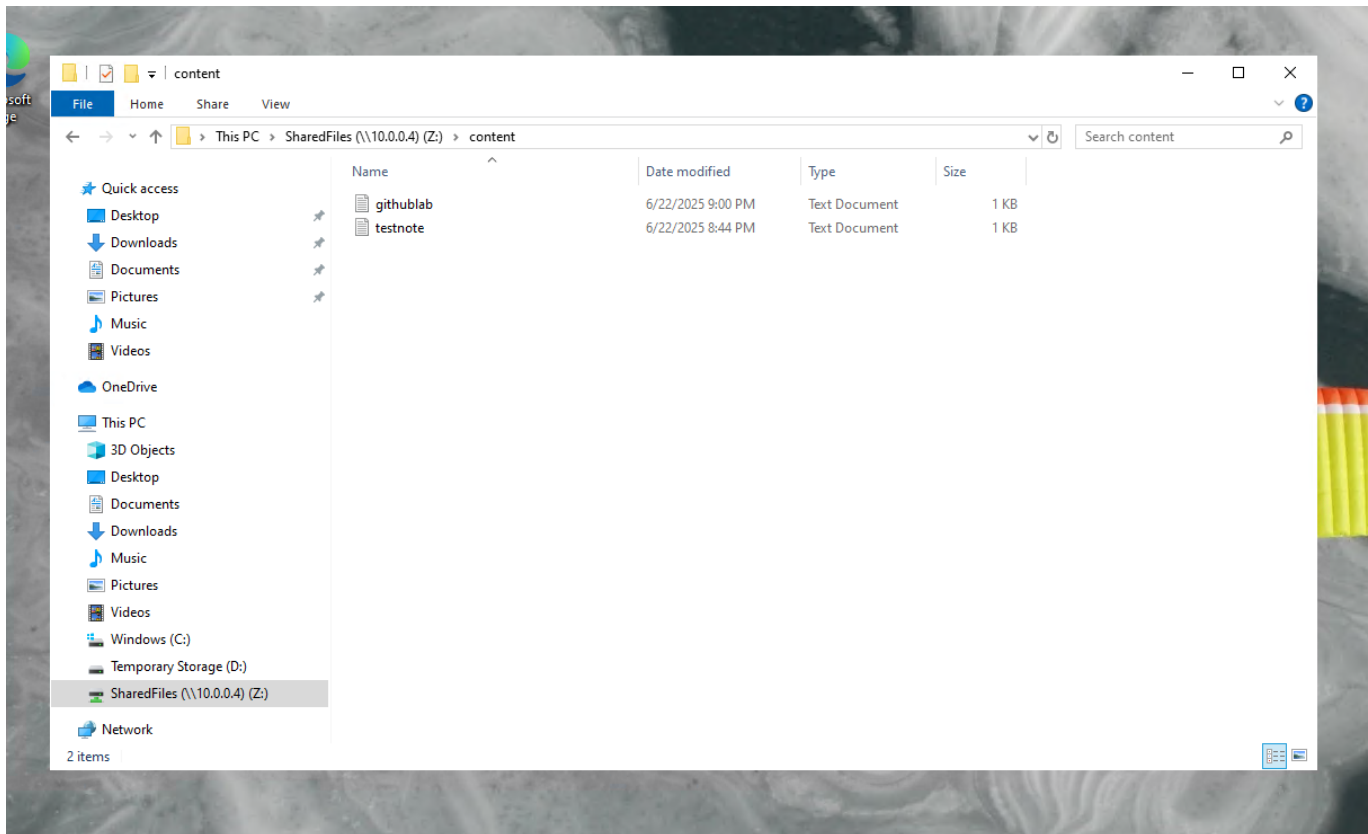
57.152.32.113 - Remote Desktop Connection

The screenshot displays a Windows Server 2022 Datacenter Azure Edition desktop environment. The desktop background is blue. On the left side, there is a Recycle Bin and a Microsoft Edge icon. The main area shows three open windows:

- Settings - About:** Displays system information for the device 'ServerVM'. It includes details like the processor (Intel(R) Xeon(R) E-2288G CPU @ 3.70GHz), installed RAM (3.98 GB), and device ID. It also shows Windows specifications: Edition (Windows Server 2022 Datacenter Azure Edition), Version (21H2), Installed on (6/22/2025), and OS build (20348.3807).
- Administrator: Windows PowerShell:** A terminal window showing the output of a ping command to 10.0.0.5. The output indicates that 4 packets were sent and received, with 0% loss. Approximate round trip times in milliseconds are shown: Minimum = 0ms, Maximum = 1ms, Average = 0ms.
- File Explorer:** A window showing the contents of a shared folder named 'content'. The folder contains two text documents: 'githublab' and 'testnote', both created on 6/22/2025. The folder is located at 'This PC > Windows (C:) > SharedFiles > content'.

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ClientVM: Mapped Z Drive



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PowerShell Scripted File Creation

