

Windows Server Lab Setup – Getting Started

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Lab Type: Windows Server 2022 Evaluation Setup (180 days)


Purpose: Set up a home lab environment for learning system administration and cybersecurity basics.

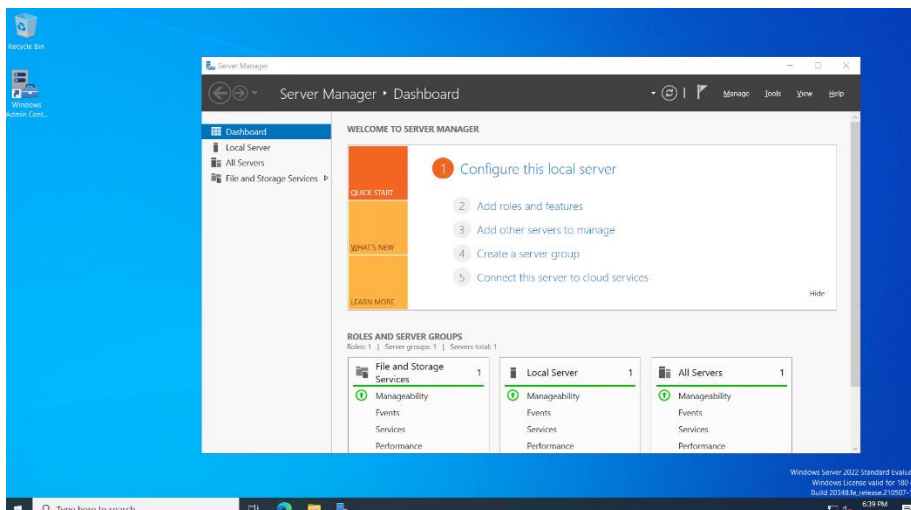
Objectives

- Install Windows Server 2022 on a local machine
- Connect it to the local network using Ethernet
- Enable remote access via Remote Desktop Protocol (RDP)
- Set up Windows Admin Center for browser-based administration

1. Download and Install Windows Server 2022

Steps:

1. Go to Microsoft Evaluation Center:  <https://www.microsoft.com/en-us/evalcenter>
2. Download **Windows Server 2022 ISO – Datacenter Edition (180 days trial)**
3. Use a bootable USB or virtualization tool (e.g., Rufus or Ventoy) to install on a physical machine
4. Choose:
 - **Standard Edition (with Desktop Experience)**
 - Language: English
 - Drive: [Specify Your Hard Drive]

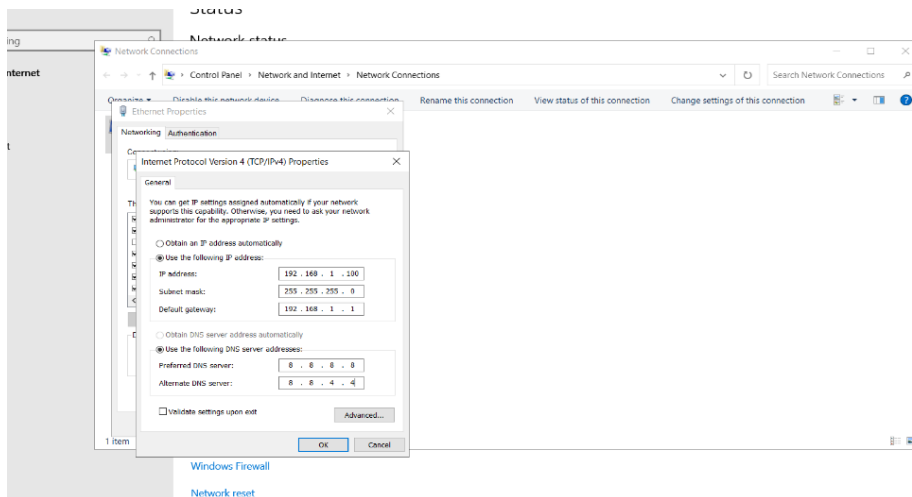


Screenshot: Server Desktop after Successful installation

2. Connect Server to Local Network

Steps:

1. Plug an Ethernet cable into the machine (preferably from router or switch)
(Note: You can also connect the server through Wi-Fi but for that you have to install and enable the service from **server manager** -> **Add Roles and Features**)
2. Assign a **static IP address**:
 - Open Control Panel > Network and Sharing Center > Change adapter settings
 - Right-click Ethernet > Properties > IPv4 > Use the following IP address
 - Example:
IP: 192.168.1.100
Subnet: 255.255.255.0
Gateway: 192.168.1.1
DNS: 8.8.8.8




Screenshot: Giving Static IP to the server

Why Static IP?

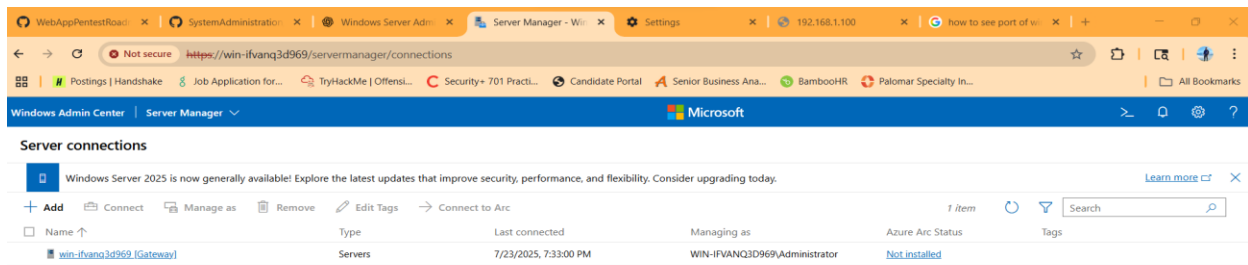
- Your Remote Desktop (RDP) and Windows Admin Center always work from your laptop
- The IP won't change after restarting, ensuring **stable network access**
- It's easier to set up services like **DNS, DHCP, File Sharing**, etc. in later weeks

3. Install & Set Up Windows Admin Center (WAC)

Steps:

1. Download Windows Admin Center from:
 <https://www.microsoft.com/en-us/windows-server/windows-admin-center>
2. Install it on the Windows Server
 - Select "Desktop Mode" if installing directly
 - Choose to use a self-signed certificate for local access

3. After installation, open:
<https://<your-server-IP>:6516> (replace with your server's static IP)
4. On your **work computer**, open a browser and access the server:
<https://192.168.1.100:6516>
Accept the security certificate warning and continue.

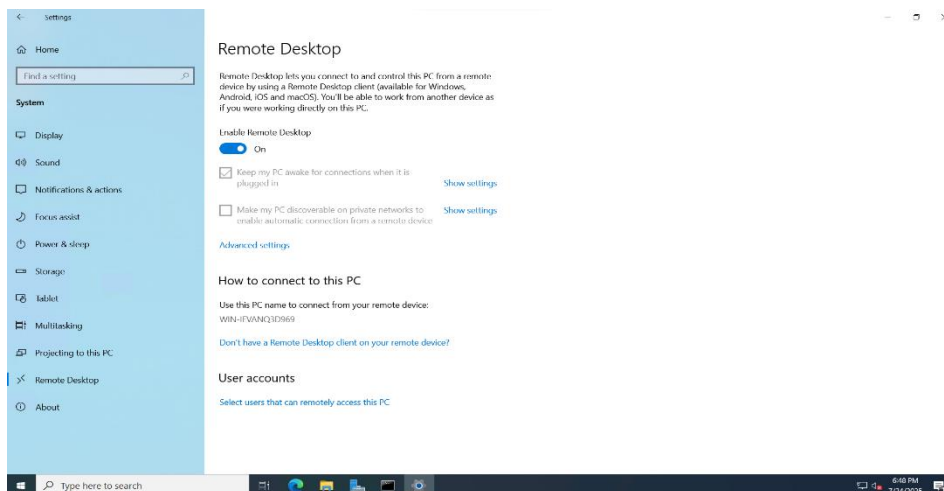


Screenshot: Windows Admin Center Accessed

4. Enable Remote Desktop (RDP)

Steps:

1. Go to Settings > System > Remote Desktop
2. Enable **Remote Desktop**
3. Allow connections from **any version** of RDP (for now — you can tighten later)
4. Add your local account to the “Remote Desktop Users” group
5. Open port 3389 in Windows Firewall (should happen automatically)

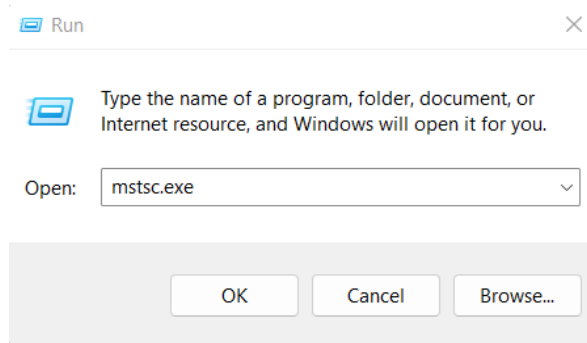


Screenshot: Enabled Remote Desktop

5. Verify Remote Access

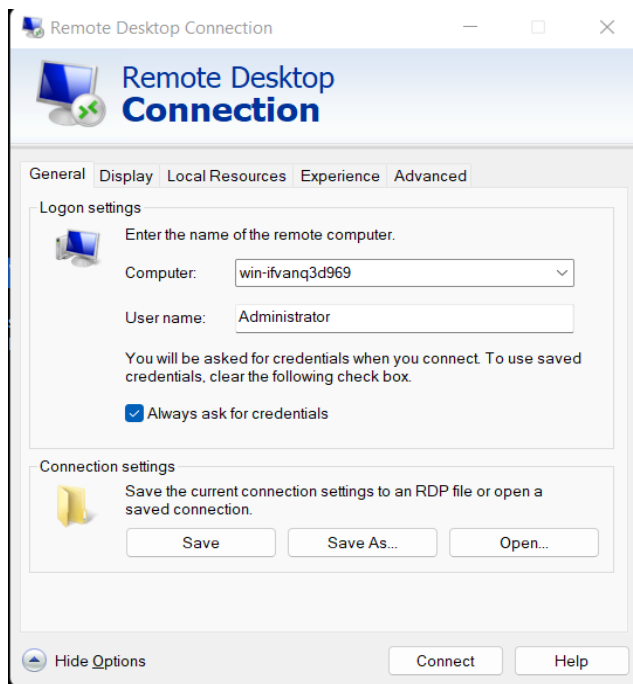
Steps:

1. On your Laptop/Workstation open “RUN” app from start menu. And type “*mstsc.exe*”. and click ok.



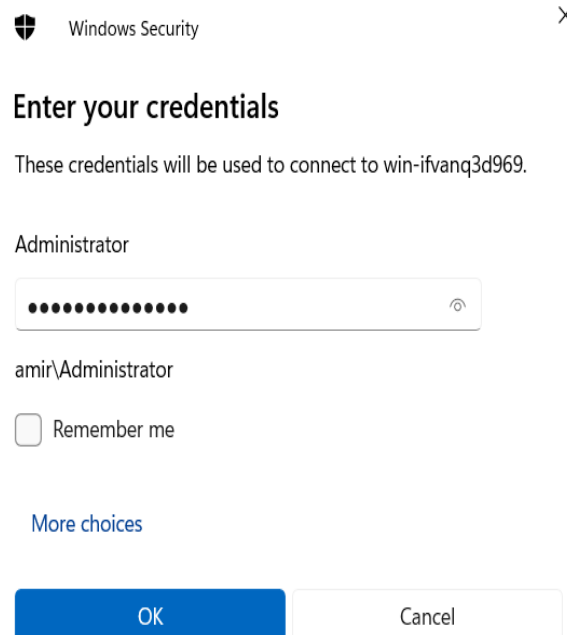
Screenshot: mstsc.exe in Run app

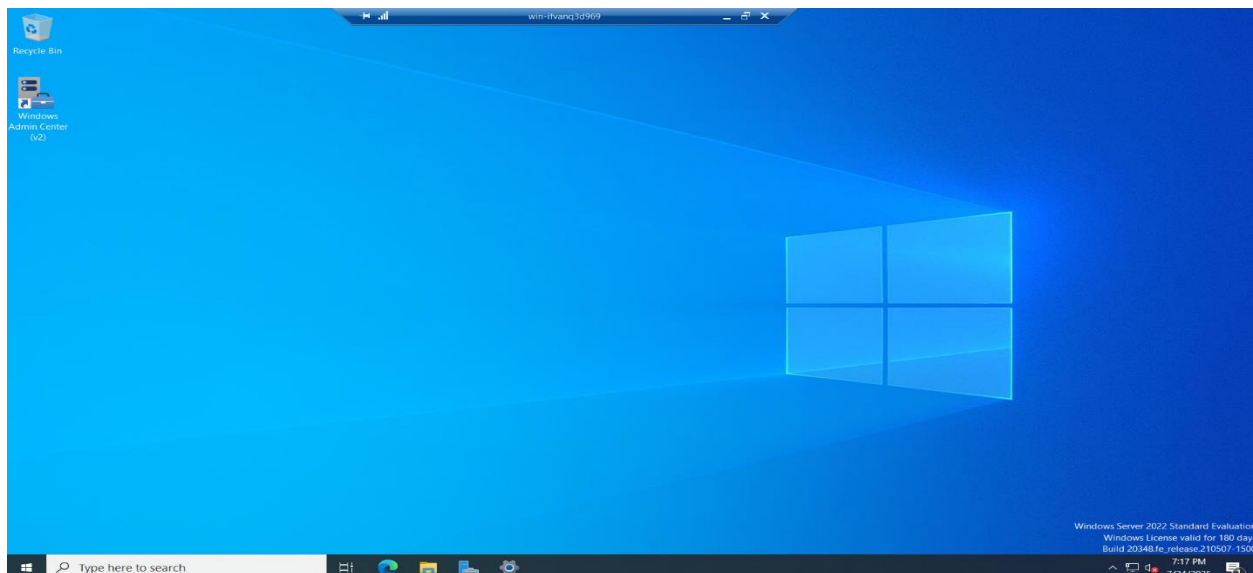
2. After That Remote Desktop Connection service will open and pop in your screen. Enter the name or Ip of your server and also expand the pop up and Enter the username for The server. Click “*connect*” and next you will be prompted to enter the password enter the password and click “ok”. And accept the certificate in the next pop-up and click “Yes”.



Screenshot: Access The RDP

3. Now You can Access the Server from your Laptop/Workstation remotely.





Screenshot: Server Accessed remotely in laptop/Workstation Through RDP

✅ Conclusion

Now that we have successfully set up our Windows Server 2022 environment, configured it with a static IP, and connected it to the local network via Ethernet, we have also enabled remote access using both Remote Desktop Protocol (RDP) and Windows Admin Center (WAC). This setup allows us to securely and efficiently manage the server directly from our laptop or workstation. It lays the foundation for hands-on learning in system administration and cybersecurity, enabling us to perform real-world tasks such as user management, service configuration, and monitoring—all from a centralized interface. This marks the beginning of a scalable lab environment for deeper exploration into server hardening, security tools integration, and enterprise-level IT operations.