

Active Directory Lab Rebuild — Cheat Sheet

1 Created two virtual machines

- Got an ISO for Windows Server (to use as the Domain Controller)
- Got an ISO for Windows 10/11 (to use as the workstation client)
- Created one Windows Server VM
- Created one Windows 10/11 VM

2 Changed network adapters to Bridged

- So both VMs were reachable on the LAN

3 Assigned static IPv4 to the Server

Run:

```
ncpa.cpl
```

👉 Opens the Network Connections panel to configure the network adapter with a static IP.

- IP: 192.168.0.243
- Subnet: 255.255.255.0
- Gateway: 192.168.0.1
- DNS: 192.168.0.243

👉 Giving the server a static IP ensures the Domain Controller's address doesn't change — all clients will rely on this IP for DNS and domain communication.

Run:

```
ipconfig /all
```

👉 Run this on the server to confirm the static configuration was applied correctly.

4 Installed AD DS + DNS roles on the Server

- Opened Server Manager → Add Roles and Features
- Installed: Active Directory Domain Services, DNS Server
- Clicked the yellow icon → “Promote this server to a domain controller”
- Selected “Add a new forest” → domain name: lab2.local

- Set DSRM password → Installed
- Server rebooted automatically
- Logged in as: LAB2\Administrator

5 Verified DNS zones

Run:

```
nslookup lab2.local
```

👉 Confirmed DNS resolution to 192.168.0.243.

6 Configured workstation network

- Set DNS to 192.168.0.243 (the server's IP — “join your PC to me”)
- Disabled IPv6

👉 Windows prefers IPv6 over IPv4 by default. On many home networks, the router advertises its IPv6 DNS, which can override your lab DNS settings.

👉 Disabling IPv6 ensures the workstation uses the Domain Controller's IPv4 DNS (192.168.0.243) for all domain lookups — avoiding DNS resolution conflicts.

Run:

```
ping 192.168.0.243
```

```
nslookup lab2.local
```

👉 Verified connectivity and DNS resolution. Look for the Server and Name sections — they should both point to your Domain Controller (e.g. lab2.local / 192.168.0.243).

7 Joined the workstation to the domain

- Used GUI domain join: Win + R → sysdm.cpl
- Set the Domain to: lab2.local
- Authenticated with LAB2\Administrator
- Restarted the machine

Or PowerShell:

```
Add-Computer -DomainName "lab2.local" -Credential LAB2\Administrator -Restart
```

8 Logged in using domain credentials

- Tested LAB2\Administrator on the workstation.

9 Ran post-join checks

👉 This step is about checking your work to make sure the domain join actually succeeded and everything is talking to the Domain Controller correctly.

Run:

```
whoami  
  
echo %logonserver%  
  
nslookup lab2.local
```

👉 Checked domain login, logon server, and DNS resolution.

On the DC: Open Active Directory Users and Computers → Computers → confirm workstation is listed.

10 Fixed DNS lookup issue by forcing IPv4 (IPv6 was interfering)

👉 The workstation was picking up the IPv6 DNS from the home router instead of the server, so domain lookups were failing.

👉 Disabled IPv6 / ensured IPv4 DNS pointed to 192.168.0.243 → after that, DNS resolution worked correctly.