

Promoting Windows Server 2019 using the Graphical User Interface

## Part A: Requirements

- A Hypervisor: Oracle VirtualBox
- Host Name: GaryDC
- OS Type: Microsoft Windows
- OS Version: Microsoft Windows 2019 (64 bits)
- RAM: 2 GB (2048MB)
- HD Space: 15 GB

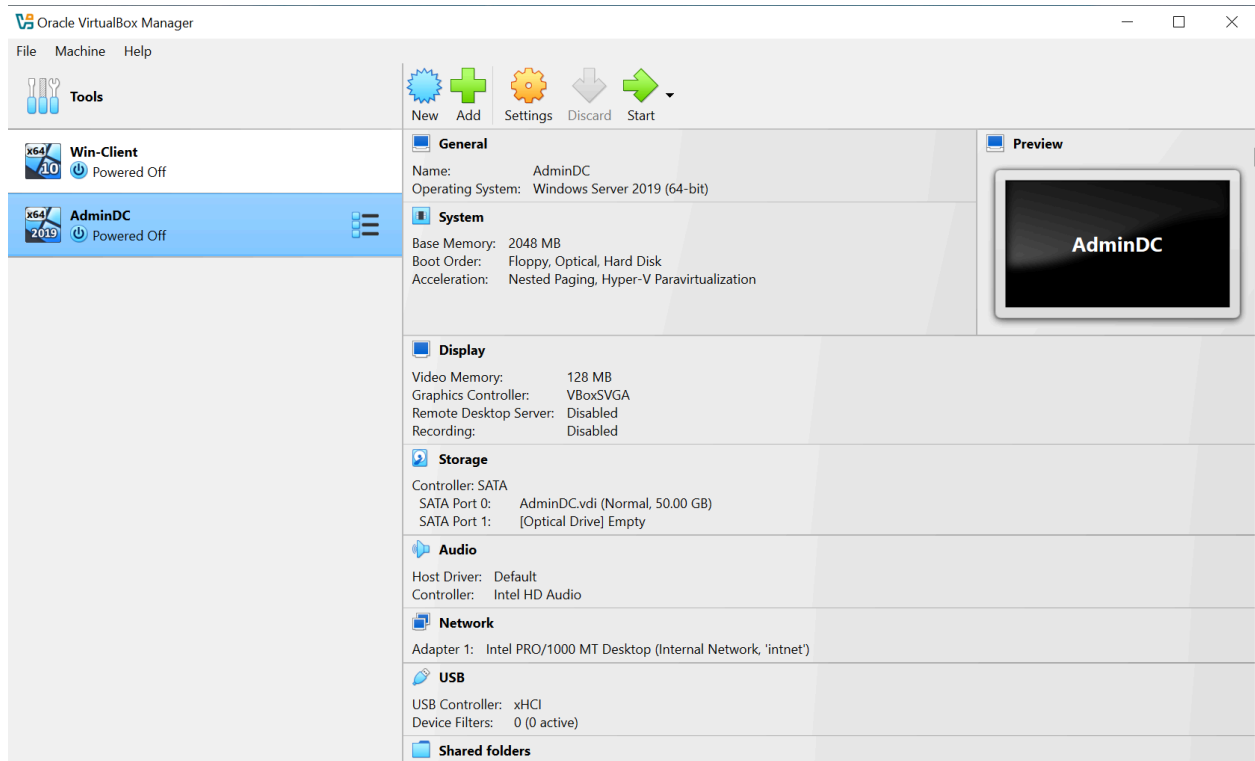


Figure 1: Oracle VirtualBox Manager (source: personal collection)

## Promoting the Server

### Promotion Requirements:

- A Windows Server (2019 server)
- Assigning a Static IP address to the server (IP:192.168.25.1)
- Changing the computer's name to a Fully Qualified Domain Name (FQDN) (RootDC.Mydomain.local), creating a Forest (Mydomain.local), NetBIOS Name (MYDOMAIN).
- Installing and configuring DNS. (Active Directory Domain Services need this).
- Installing the Active Directory Domain Services Role

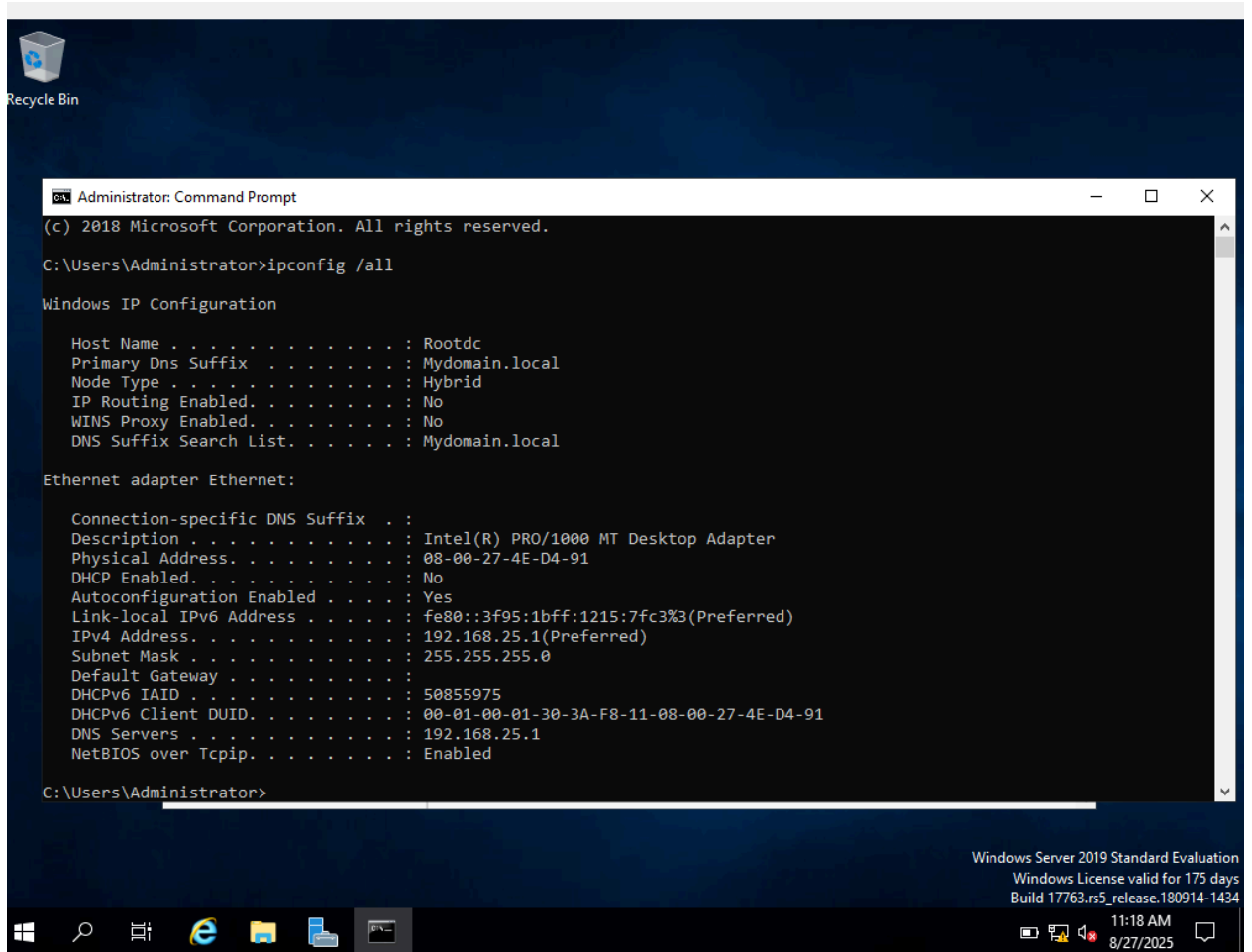
### Configurations

#### 1. Assigning a Static IP Address to the server

IP address	Subnet Mask	Default Gateway	Preferred DNS server	Alternate DNS Server
192.168.25.1	255.255.255.0	N/A	192.168.25.1	N/A

## 2. Verification

I used the command `ip config/all` to verify if the IP address was assigned correctly, and verified other information.



The screenshot shows a Windows Server 2019 desktop environment. A Recycle Bin icon is visible in the top-left corner. A Command Prompt window titled "Administrator: Command Prompt" is open, displaying the output of the `ipconfig /all` command. The output shows the following configuration details:

```
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C:\Users\Administrator>ipconfig /all

Windows IP Configuration

    Host Name . . . . . : Rootdc
    Primary Dns Suffix . . . . . : Mydomain.local
    Node Type . . . . . : Hybrid
    IP Routing Enabled. . . . . : No
    WINS Proxy Enabled. . . . . : No
    DNS Suffix Search List. . . . . : Mydomain.local

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix . : 
    Description . . . . . : Intel(R) PRO/1000 MT Desktop Adapter
    Physical Address. . . . . : 08-00-27-4E-D4-91
    DHCP Enabled. . . . . : No
    Autoconfiguration Enabled . . . . : Yes
    Link-local IPv6 Address . . . . . : fe80::3f95:1bff:1215:7fc3%3(Preferred)
    IPv4 Address. . . . . : 192.168.25.1(Preferred)
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 
    DHCPv6 IAID . . . . . : 50855975
    DHCPv6 Client DUID. . . . . : 00-01-00-01-30-3A-F8-11-08-00-27-4E-D4-91
    DNS Servers . . . . . : 192.168.25.1
    NetBIOS over Tcpip. . . . . : Enabled

C:\Users\Administrator>
```

The taskbar at the bottom shows the Windows logo, search icon, and several application icons. The system tray in the bottom-right corner displays "Windows Server 2019 Standard Evaluation", "Windows License valid for 175 days", "Build 17763.rs5\_release.180914-1434", the time "11:18 AM", and the date "8/27/2025".

Figure 2: Verifying network information (source: personal collection)

### 3. FQDN verification

The screenshot displays the Windows Server Manager interface for a virtual machine named 'AdminDC [Running] - Oracle VirtualBox'. The 'Server Manager' window is open, showing the 'Local Server' tab. The left sidebar contains navigation options: Dashboard, Local Server (selected), All Servers, and File and Storage Services. The main area is titled 'PROPERTIES For Rootdc' and displays various system settings and hardware information. Below this, the 'EVENTS' section shows a list of recent events.

**PROPERTIES For Rootdc**

Property	Value
Computer name	Rootdc
Workgroup	WORKGROUP
Windows Defender Firewall	Public: On
Remote management	Enabled
Remote Desktop	Disabled
NIC Teaming	Disabled
Ethernet	192.168.25.1, IPv6 enabled
Operating system version	Microsoft Windows Server 2019 Standard Evaluation
Hardware information	innotek GmbH VirtualBox
Processors	11th Gen Intel Core i7-12700K
Installed memory (RAM)	2 GB
Total disk space	49.46 GB

**EVENTS**  
All events | 63 total

Server Name	ID	Severity	Source	Log	Date and Time
ROOTDC	134	Warning	Microsoft-Windows-Time-Service	System	8/28/2025 3:59:00 PM
ROOTDC	1014	Warning	Microsoft-Windows-DNS Client Events	System	8/28/2025 3:59:00 PM
ROOTDC	134	Warning	Microsoft-Windows-Time-Service	System	8/28/2025 3:58:59 PM

Figure 4: Local Server overview (source: personal collection)

#### 4. Forest creation and BIOS setup

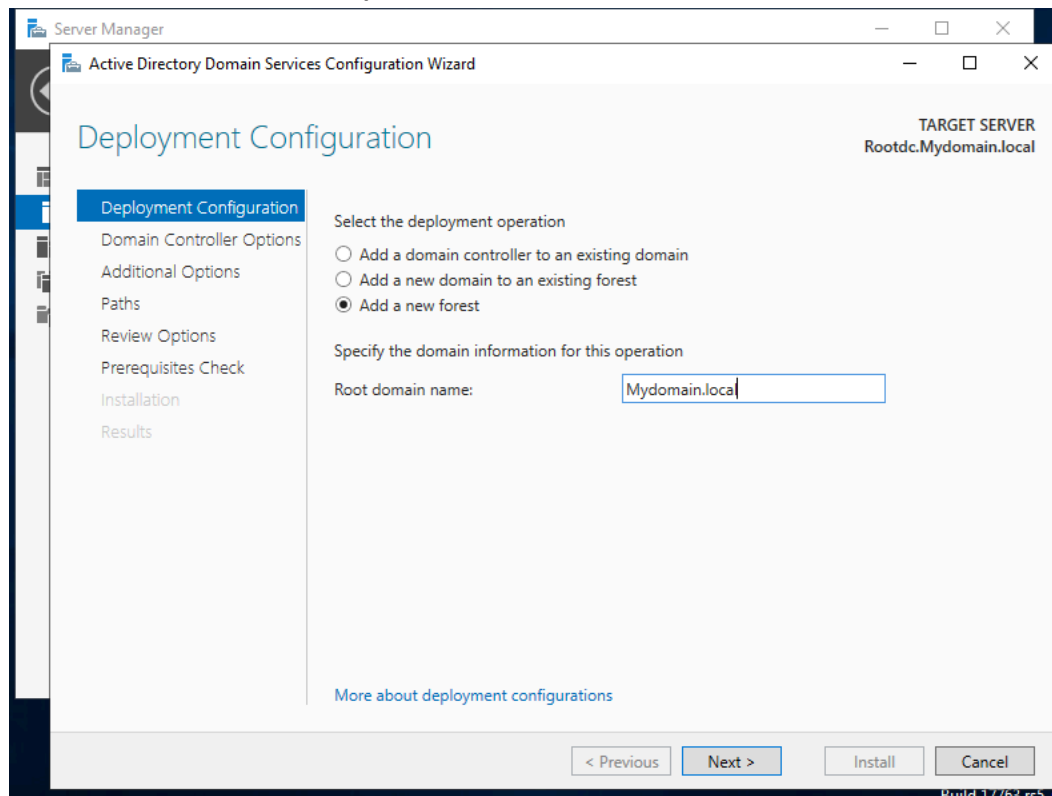


Figure 5: Forest creation (source: personal collection)

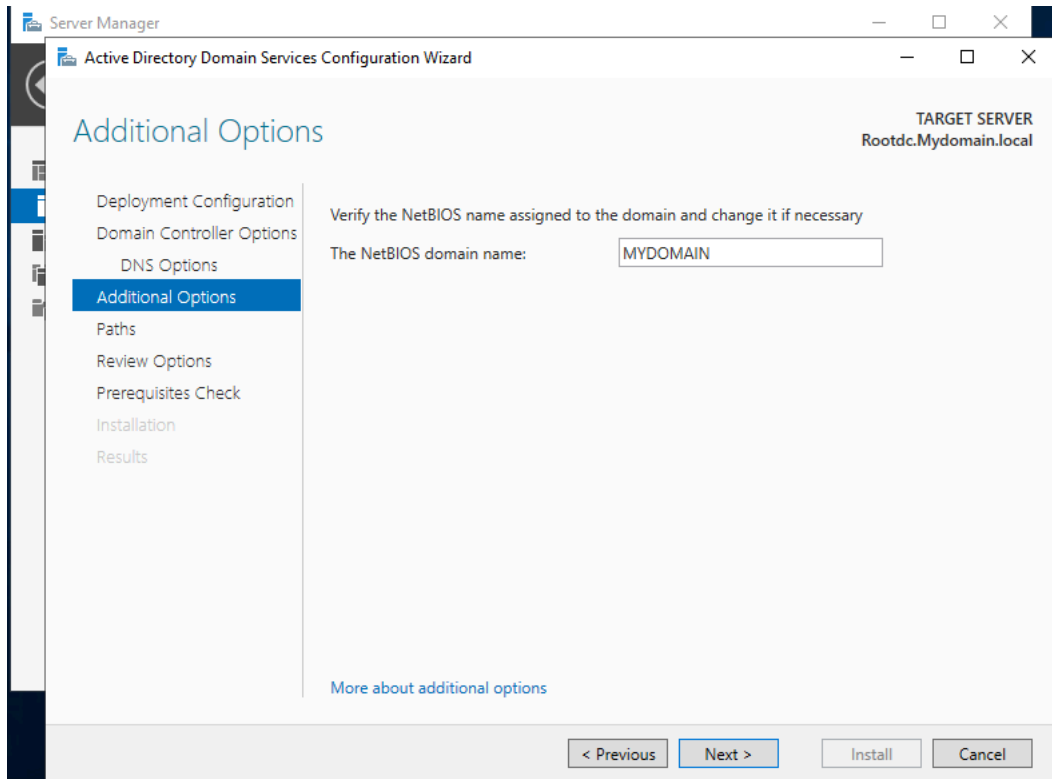


Figure 6: NetBIOS configuration (source: personal collection)

## 5. Active Directory Domain Services installation & promotion

I used the manage button to “add roles and features”. Then I followed the instructions in the wizard for the prerequisite configurations as follows:

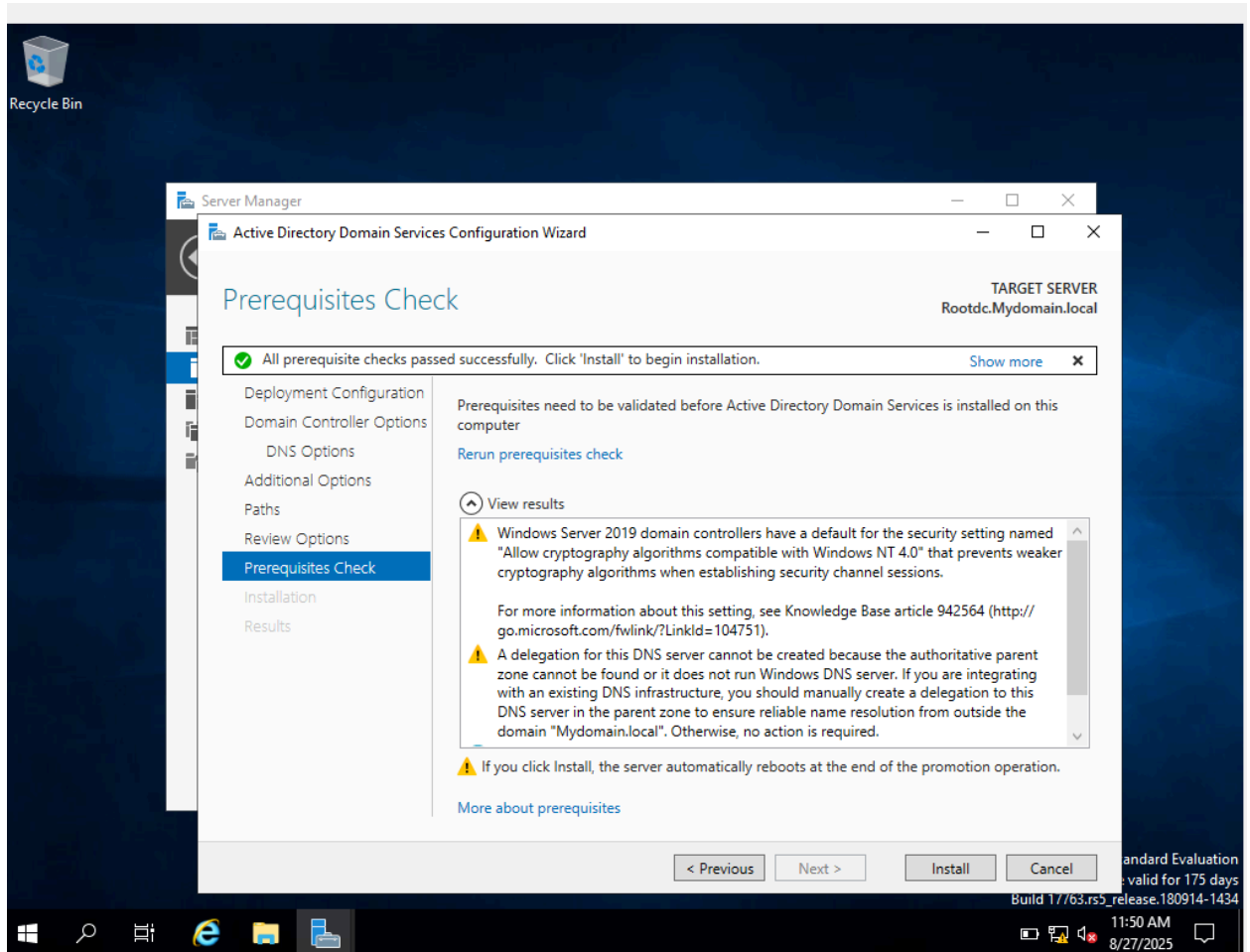


Figure 7: Add Roles & Features Wizard configuration (source: personal collection)



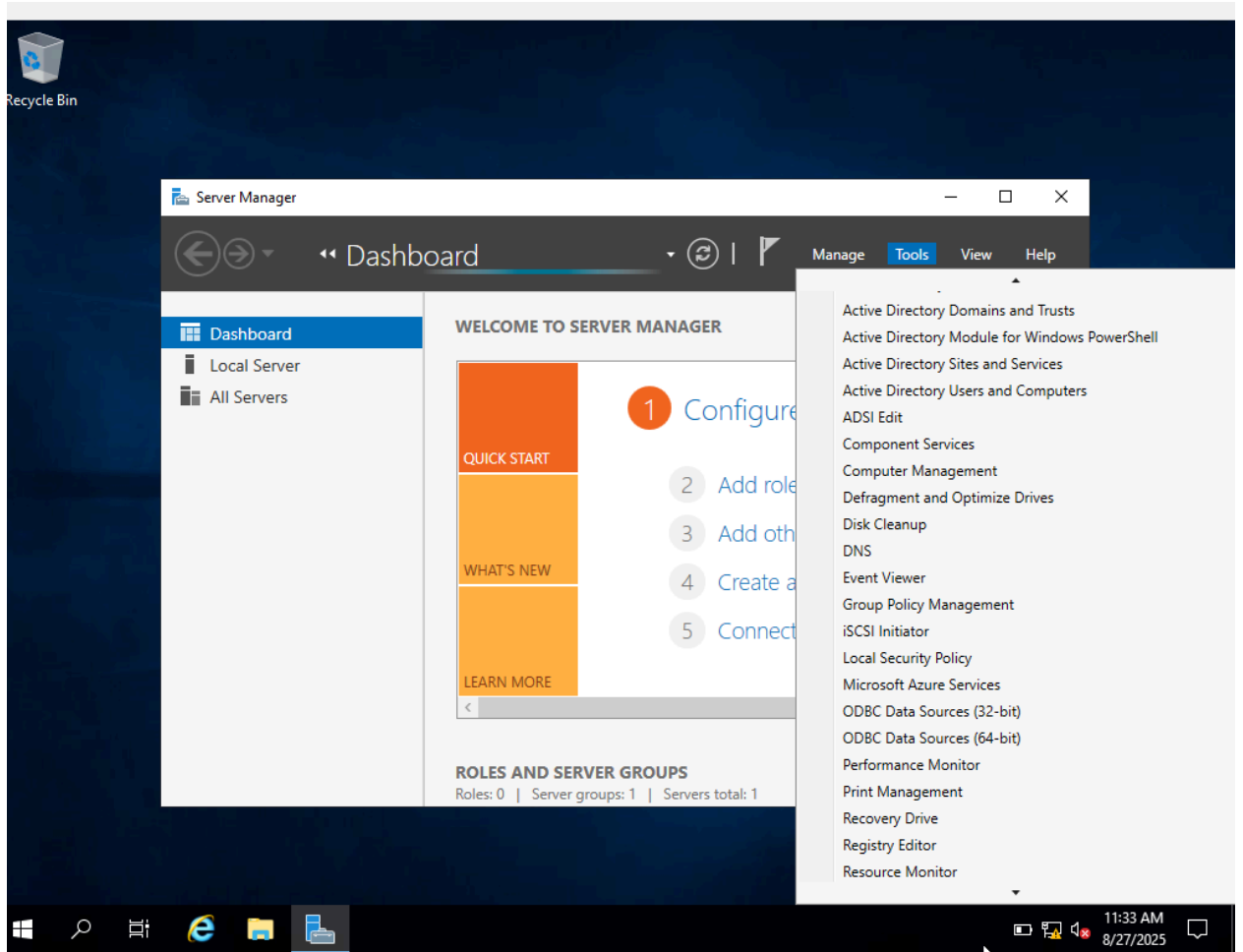


Figure 8: AD DS successful installation (source: personal collection)

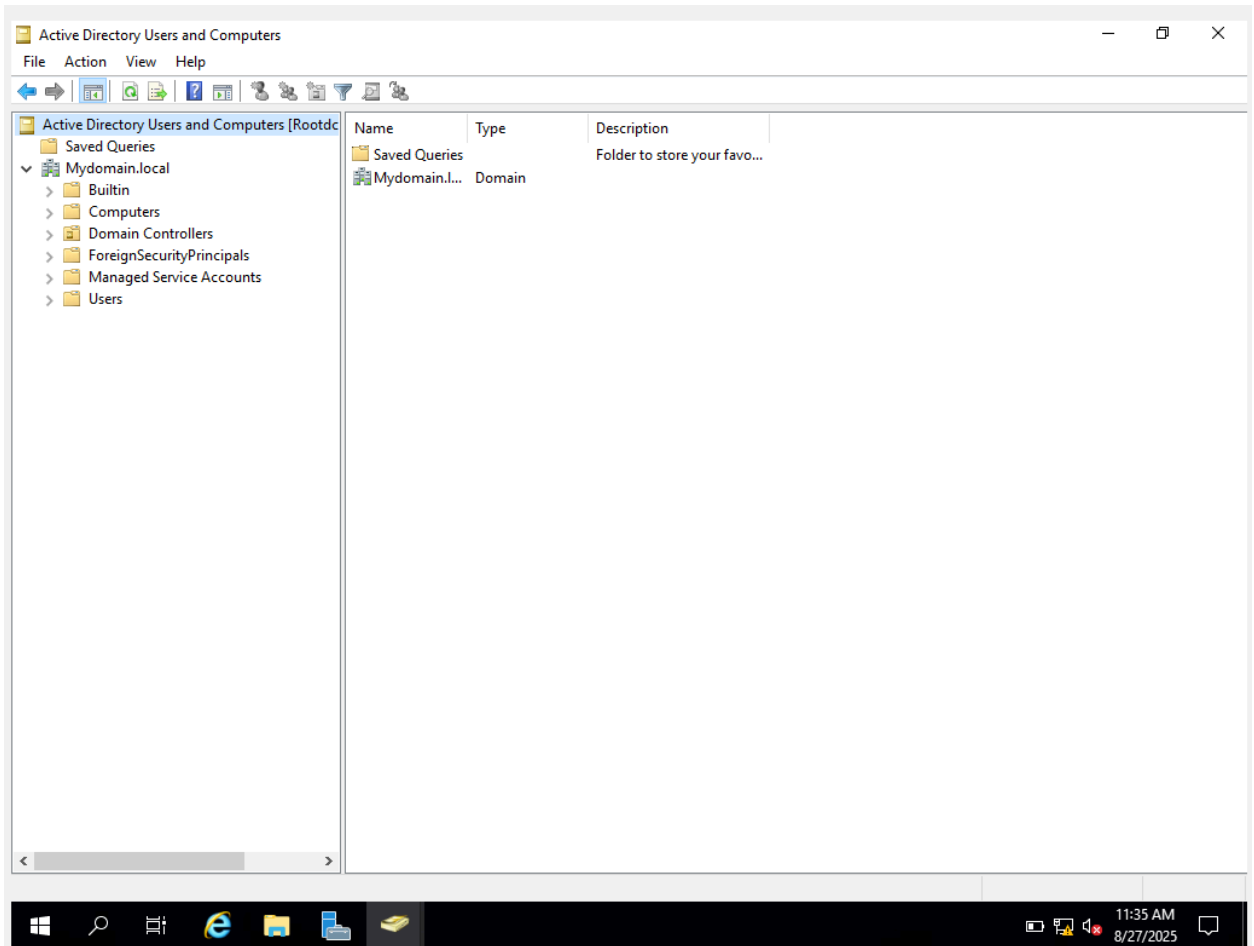


Figure 9: Active Directory Users and Computers overview (source: personal collection)

### Populating the Active Directory Domain Services with Objects

- Organizational Units (OU): This includes the Domain Controllers (default), Computers (Default), Accounting, Advertising, Returns, Sales, and Technical support.
- Users: This includes users created in the sub-OU Urim Africa, inside the Advertising OU.
- Group users: This includes groups created inside technical support and the Accounting OU.
- Computers: This includes computers (client machines & Member Servers) created in the OU.

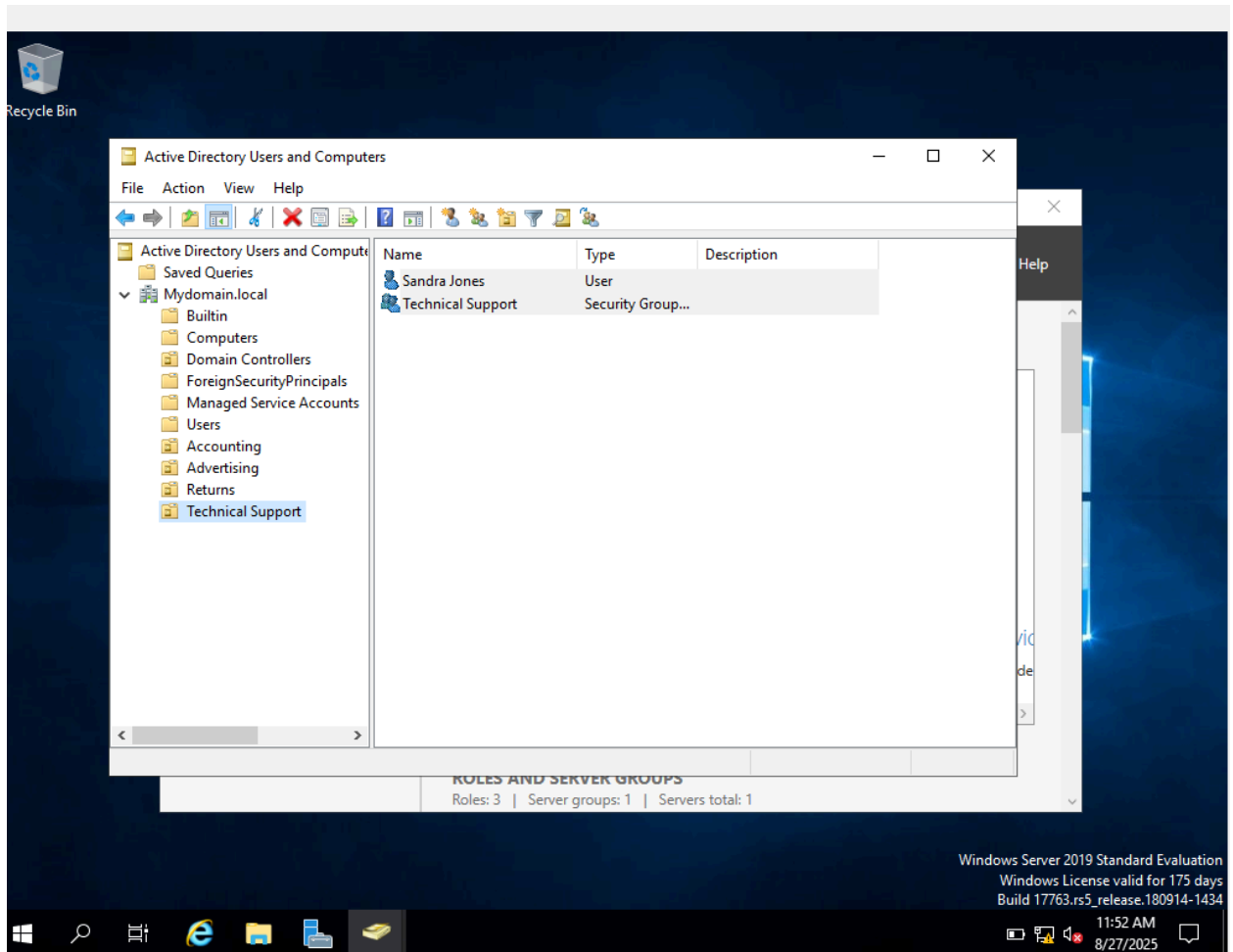


Figure 10: Technical Support OU overview (source: personal collection)

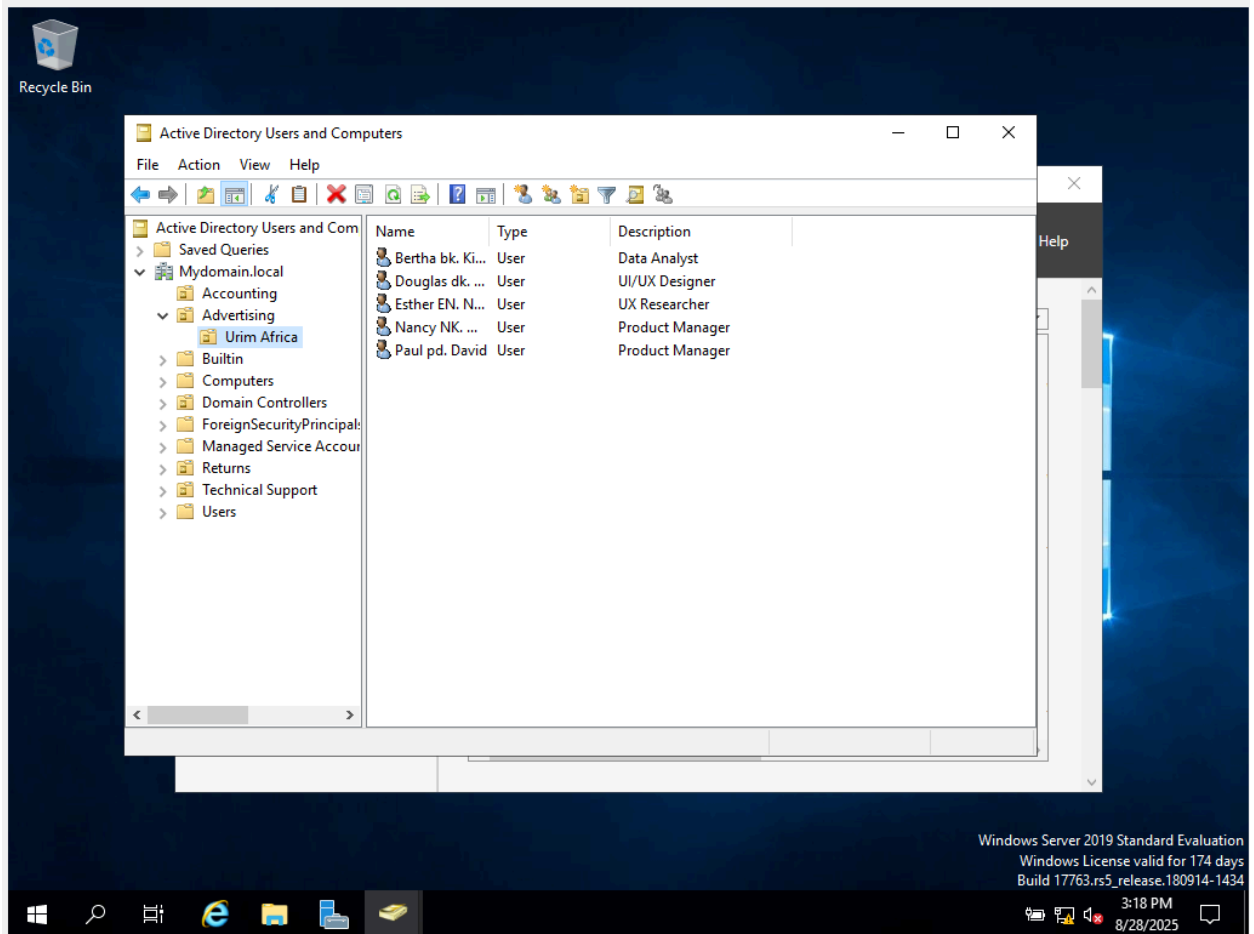


Figure 11: Users in Urim Africa sub-OU (source: personal collection)

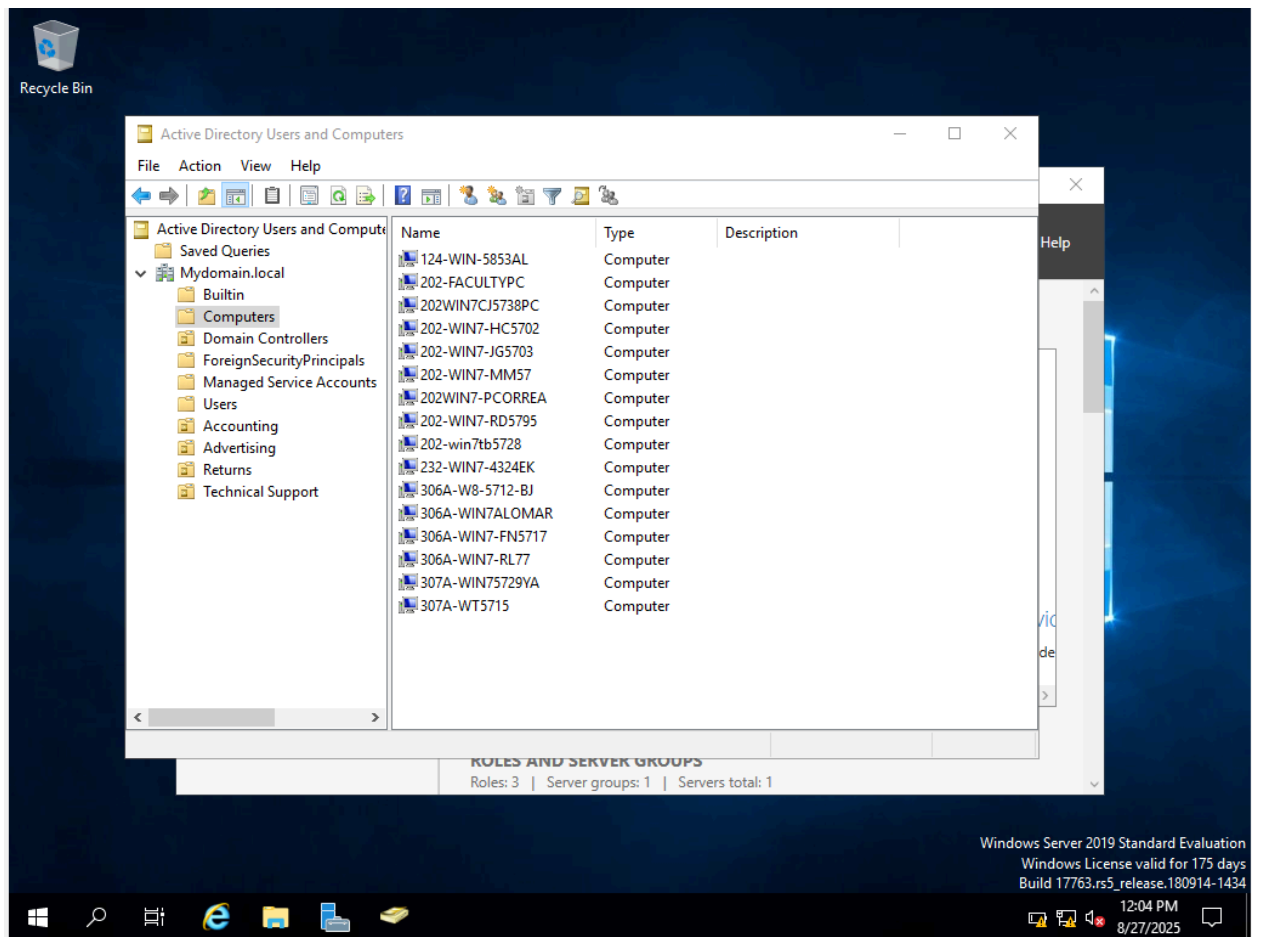


Figure 12: Computers created in Computers OU (source: personal collection)

## Part B: Demoting (removing) the Active Directory

This is the process of retiring the old Domain Controller and restoring it to the “WORKGROUP” from the Domain. For the sake of this lab, I did the following:

- Demote the machine (Remove Active Directory)
- Remove “Active Directory Domain Services Role” and any other roles, such as DNS

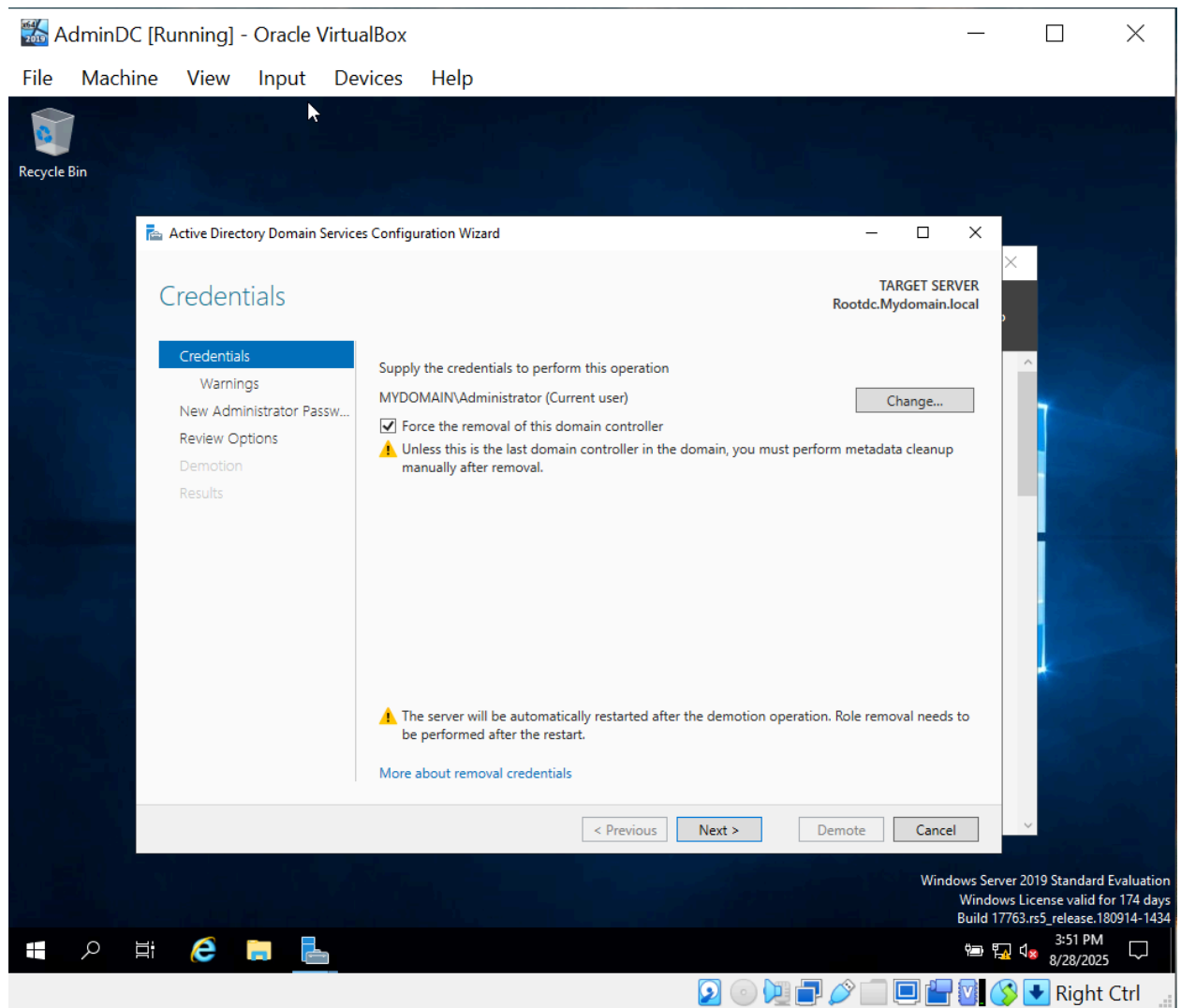


Figure 13: Force Removal option (source: personal collection)

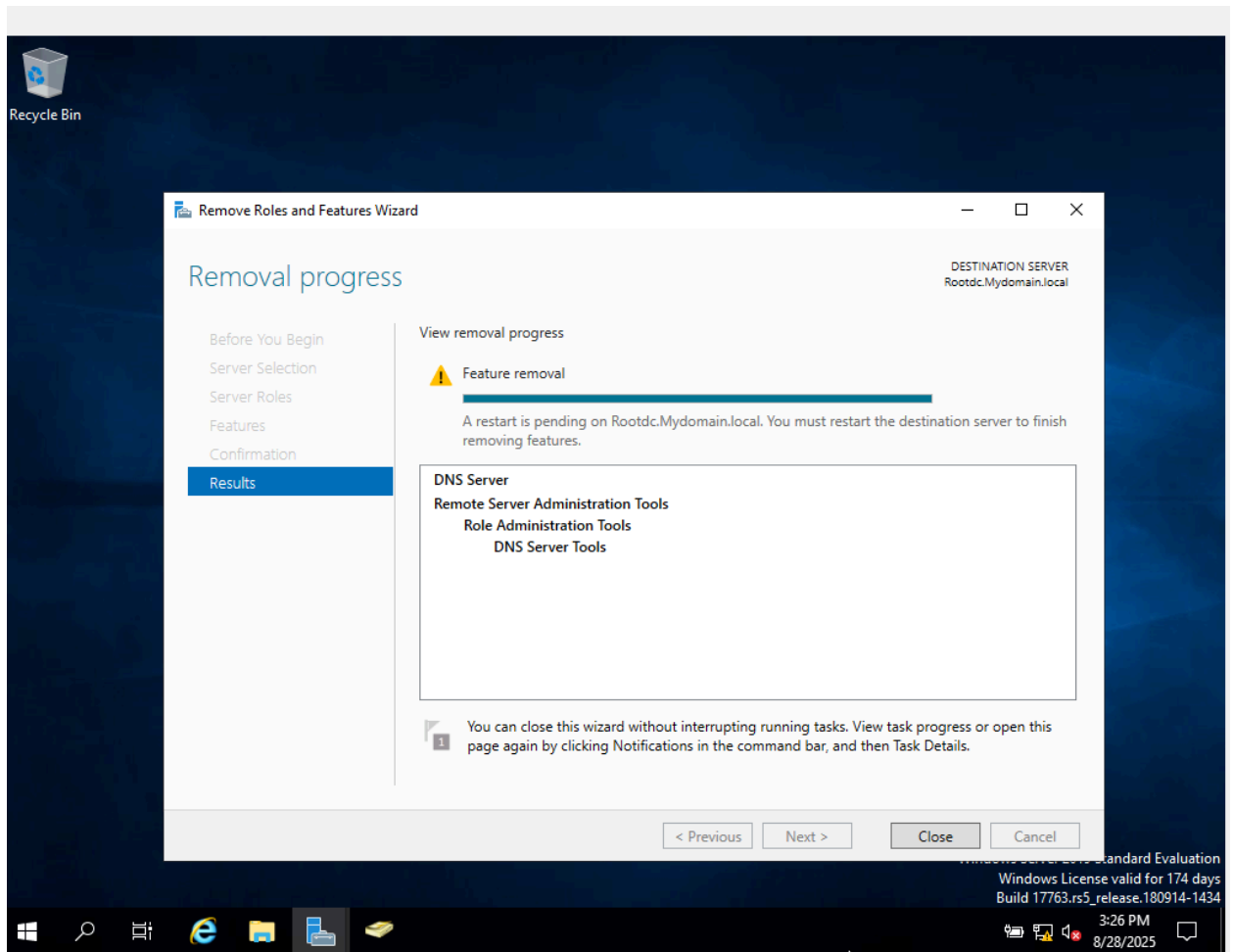


Figure 14: Removal Progress (source: personal collection)

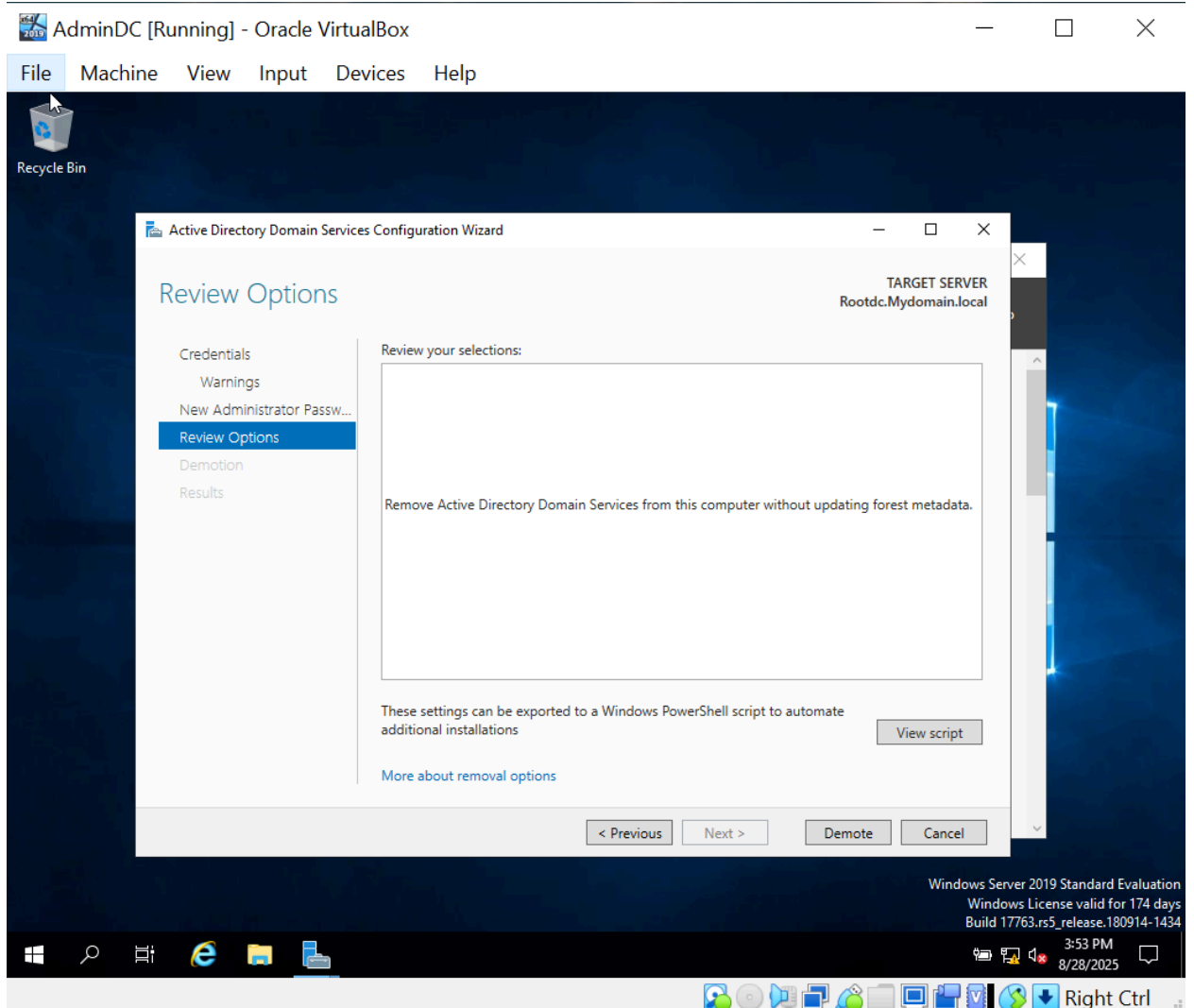


Figure 15: Successfully demoted the AD DS (source: personal collection)



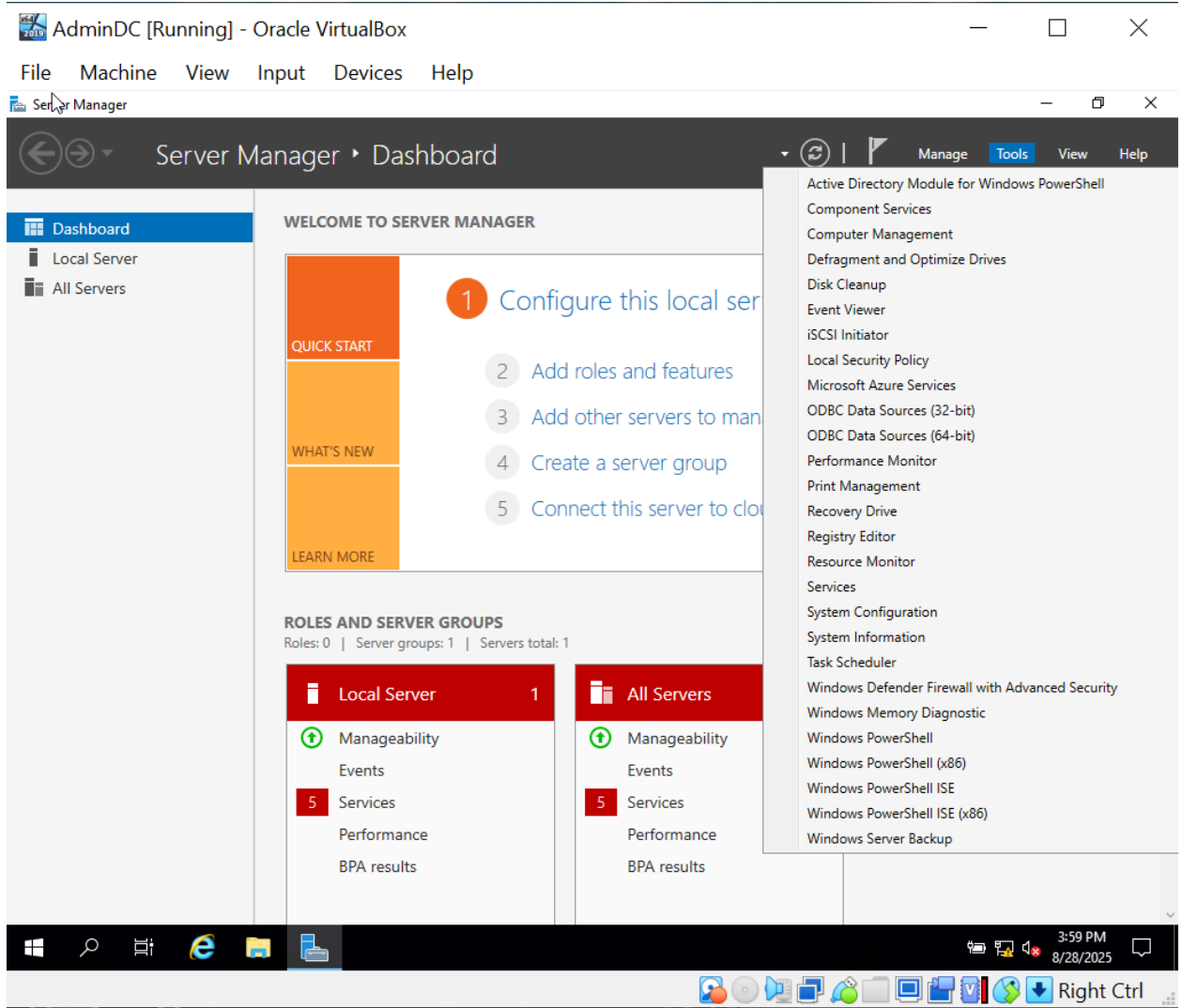


Figure 16: Verification (source: personal collection)