

IT 236 Project Report Form

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Date:	10/9/2025
Project Phase	Deploying Active Directory Domain Controller

Section 1: Executive Summary (10 Points)

This lab exercise involved the deployment of Active Directory Domain Services (AD DS) on NV-DC1, the first domain controller for NewVue Health. This exercise builds upon the virtual infrastructure created in Week 2, where all systems were configured and network connectivity verified. The goal of this lab was to install the AD DS role, promote NV-DC1 to a domain controller, and verify that the new domain was successfully established.

The following verifications were performed to confirm the success of the deployment:

1. Confirming that Active Directory Domain Services is listed under Roles and Server Groups with a green checkmark and appears in the left navigation panel of Server Manager
2. Validating all prerequisites showing checks passed and confirming the domain controller role shows a green status icon for both AD DS and DNS Server.
3. Verifying the deployment by locating key AD DS database files such as ntds.dit, edb.log, and edb.chk

System Information

(Complete the table below with the details of the virtual machines created.)

Server Name	Roles Installed	Domain	Forest and Domain Functional Levels	Domain Controller Capabilities
NV-DC1	Active Directory Domain Services	newvue.local	a. Window Server 2016 b. Window Server 2016	a. Domain Name System (DNS) Server b. Global Catalog (GC)

This deployment marks the first step in centralizing user authentication and management for NewVue Health's hybrid infrastructure.

Section 2: Installing the AD DS Role (15 pts)

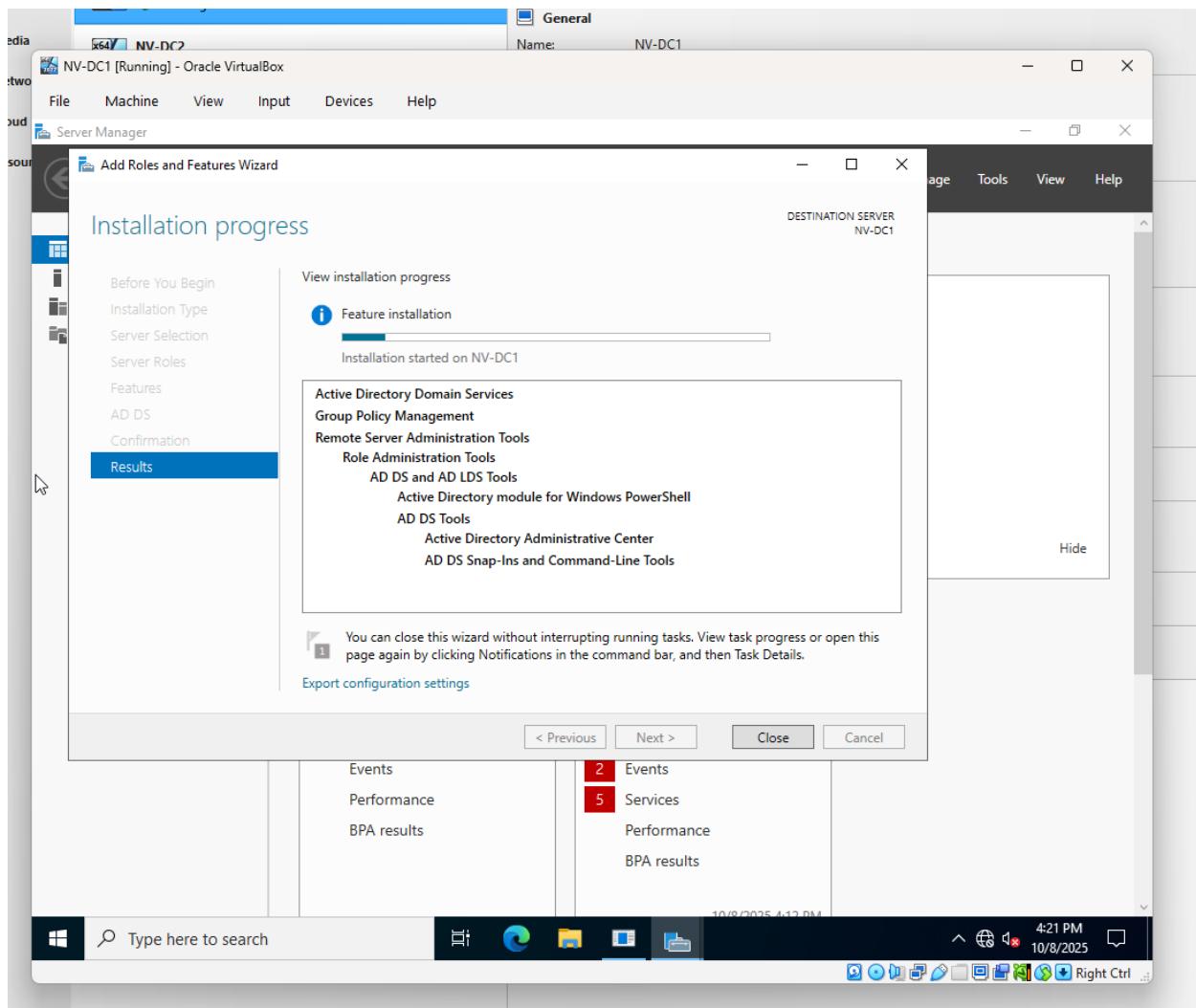
I began by installing the **Active Directory Domain Services (AD DS)** role on **NV-DC1** to prepare the server for promotion as the first domain controller in the **newvue.local** forest.

Some of the key steps that were taken include:

1. Logging into NV-DC1 as the local Administrator and launching Server Manager.
2. Using the "Add Roles and Features" wizard.
3. Confirming NV-DC1 as the destination server.
4. Selecting the "Active Directory Domain Services" server role and adding required features.
5. Proceeding with the installation and confirming its success.

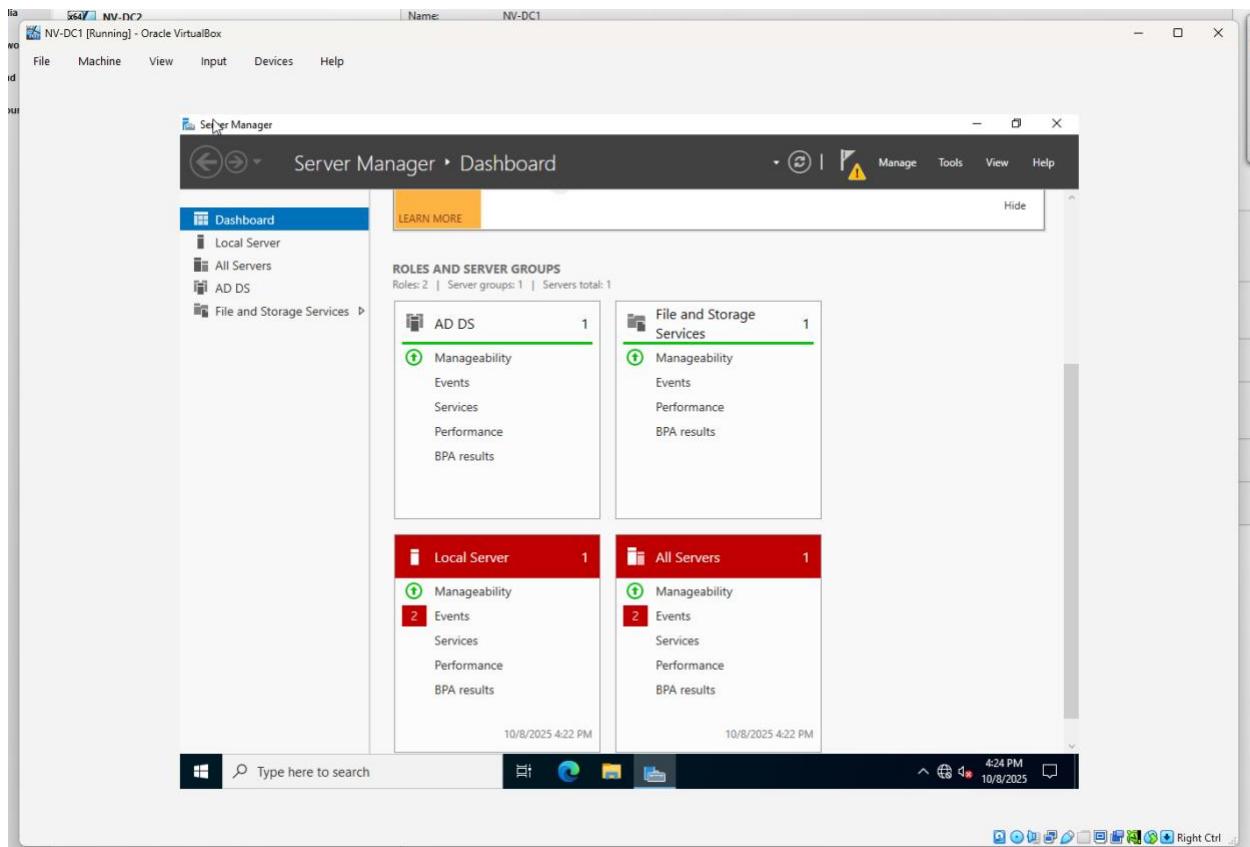
Evidence 1:

Screenshot of the **Add Roles and Features Wizard – Installation Progress** window showing AD DS being installed.



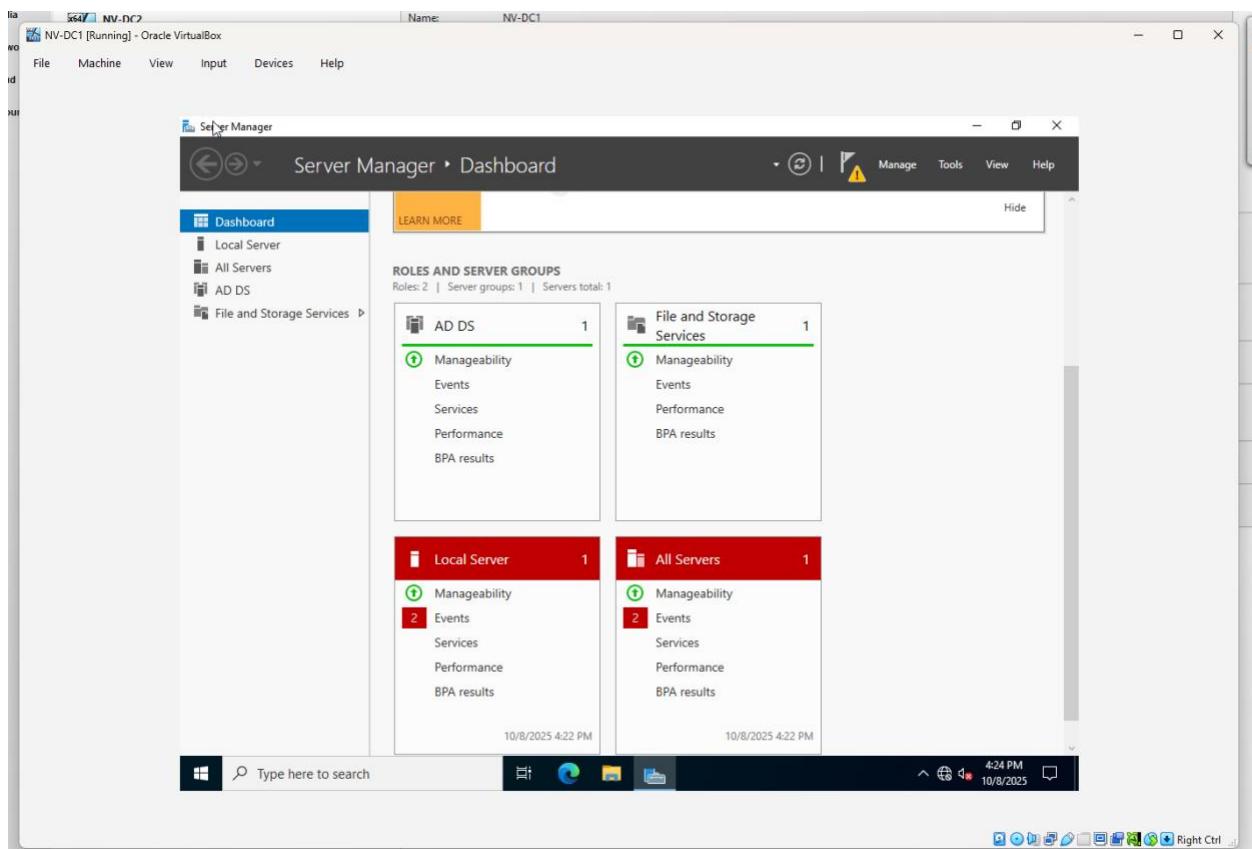
Evidence 2:

Screenshot of **Server Manager** → **Dashboard** showing **Active Directory Domain Services** listed under Roles and Server Groups with a green check mark.



Evidence 3:

Screenshot of the **Server Manager left navigation pane** confirming that **AD DS** now appears as an installed role.



Section 3: Task — Promoting NV-DC1 to a Domain Controller (20 pts)

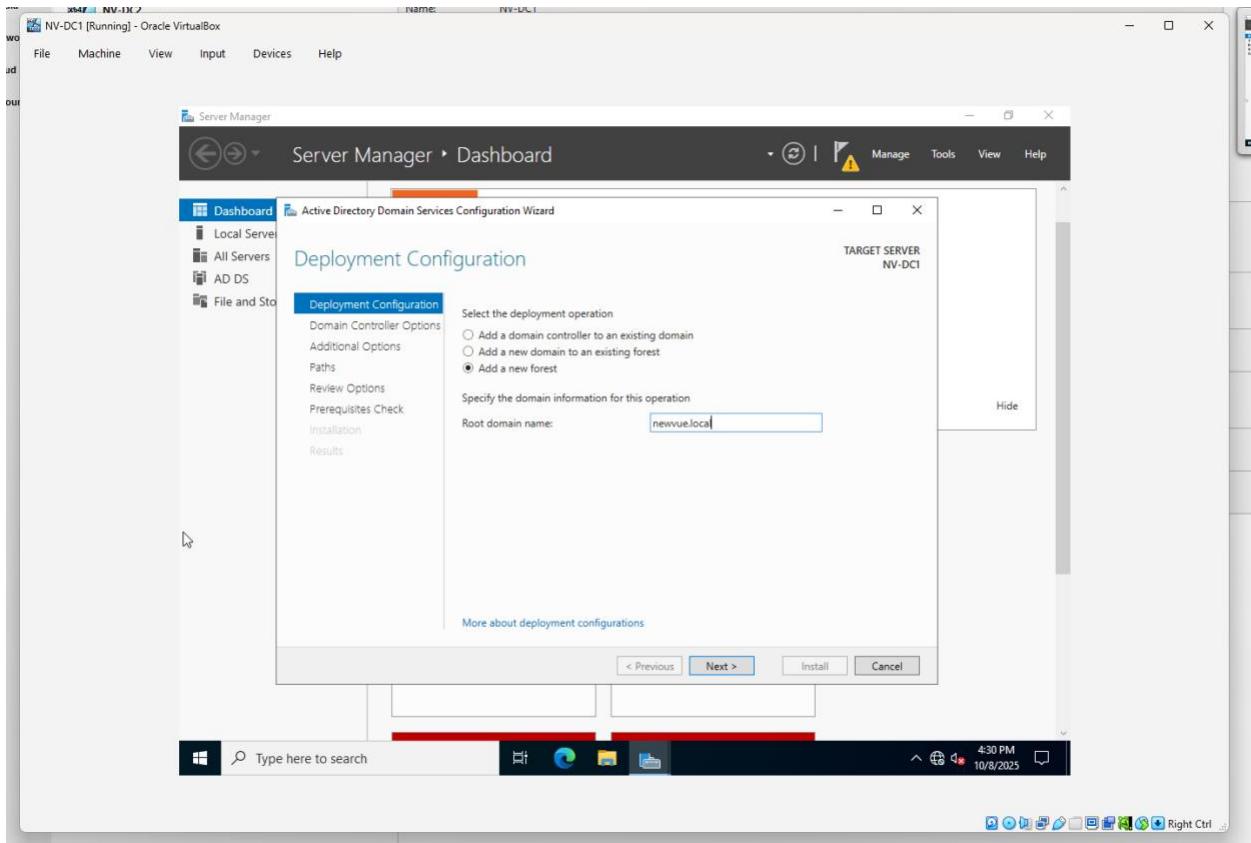
After installing the AD DS role, I proceeded to promote **NV-DC1** to a **domain controller** to create the new **newvue.local** forest for NewVue Health. This process converted the standalone server into the first domain controller, enabling centralized authentication, DNS integration, and directory management across the environment.

Some of the key steps that were taken include:

1. Clicking the notification flag in Server Manager to begin the promotion.
2. Configuring the deployment to add a new forest with the domain name **newvue.local**.
3. Setting forest and domain functional levels to Windows Server 2022 but found 2016 was the highest and available.
4. Ensuring both the DNS Server and Global Catalog domain controller capabilities were selected.
5. Entering and confirming a Directory Services Restore Mode (DSRM) password.
6. Validating that all prerequisites passed successfully before installation.

Evidence 1:

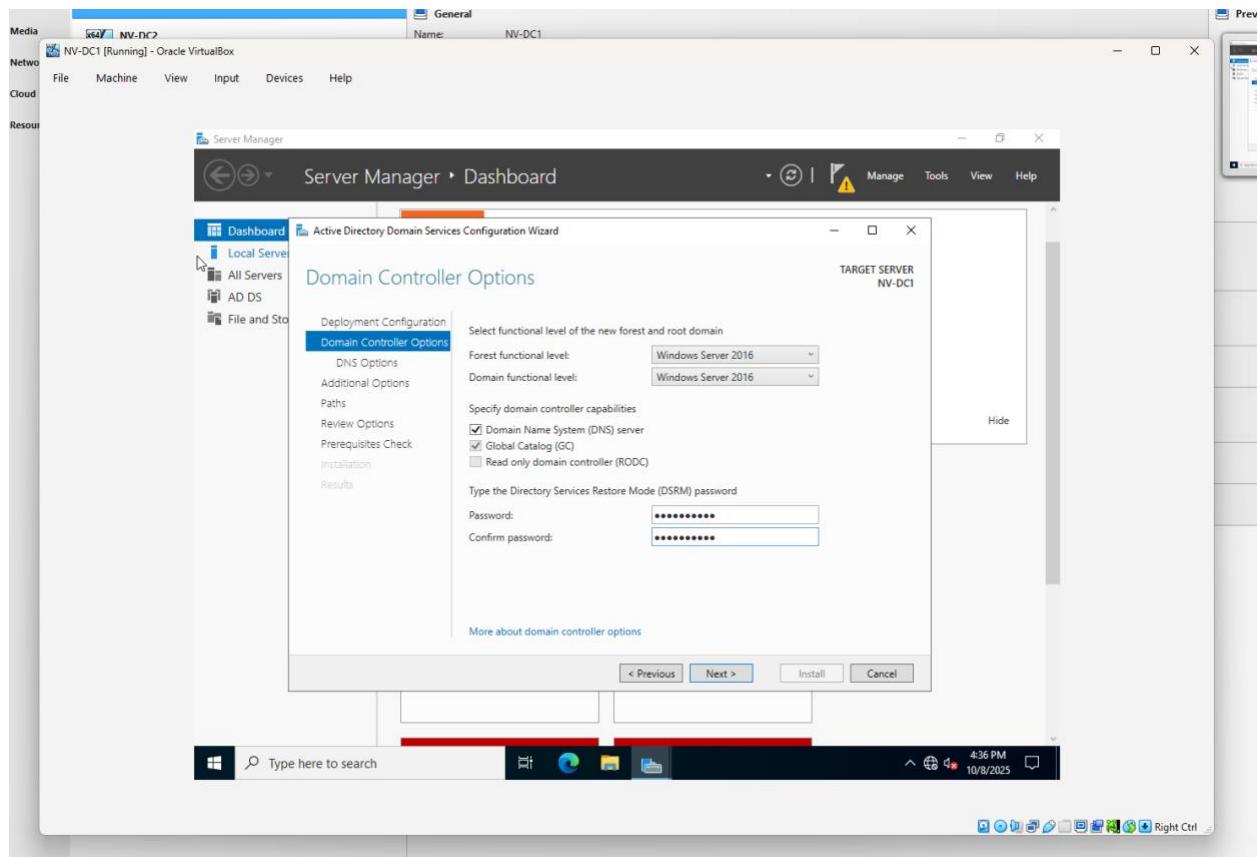
Screenshot of the **Deployment Configuration** page showing the new forest and domain name **newvue.local**.



Evidence 2:

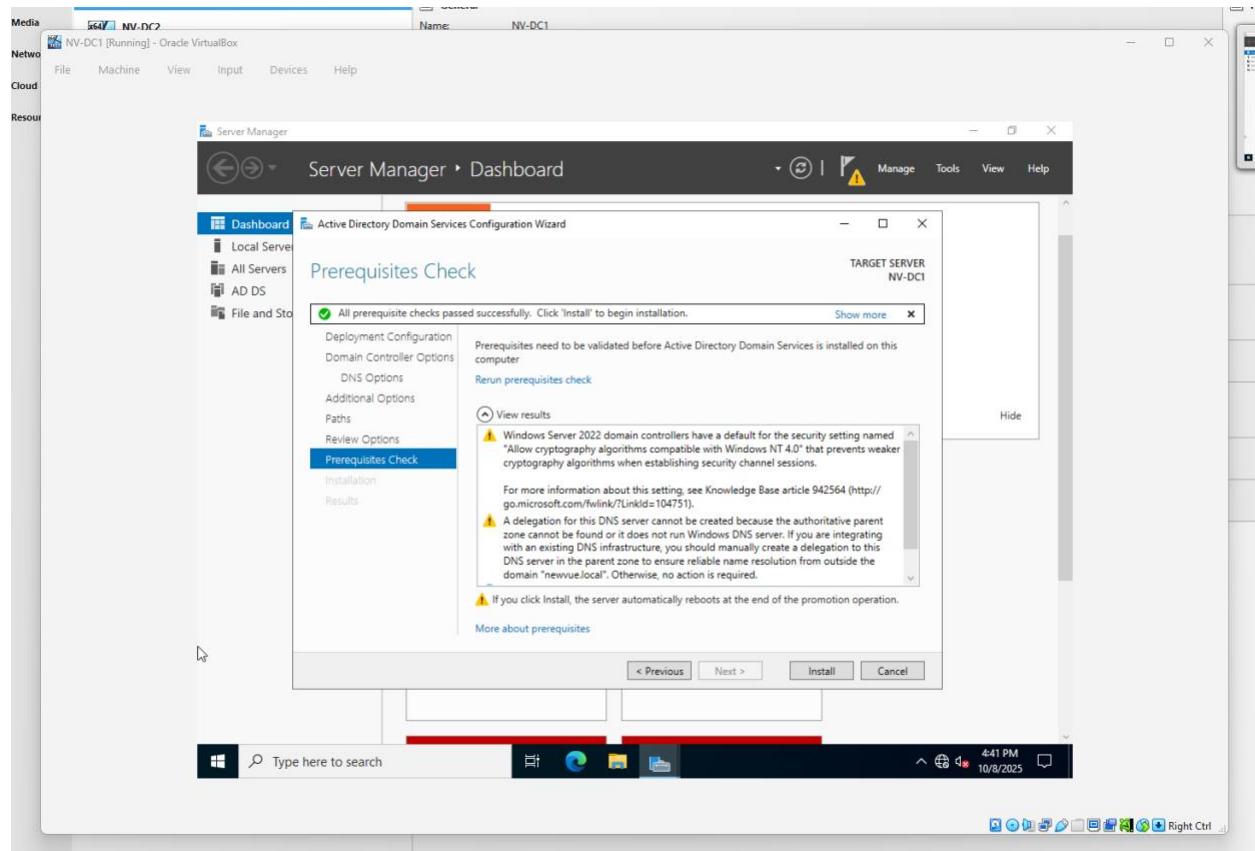
Screenshot of the **Domain Controller Options** page showing:

- Forest and Domain Functional Levels (set to Windows Server 2022)
- DNS Server and Global Catalog options selected
- DSRM password configured



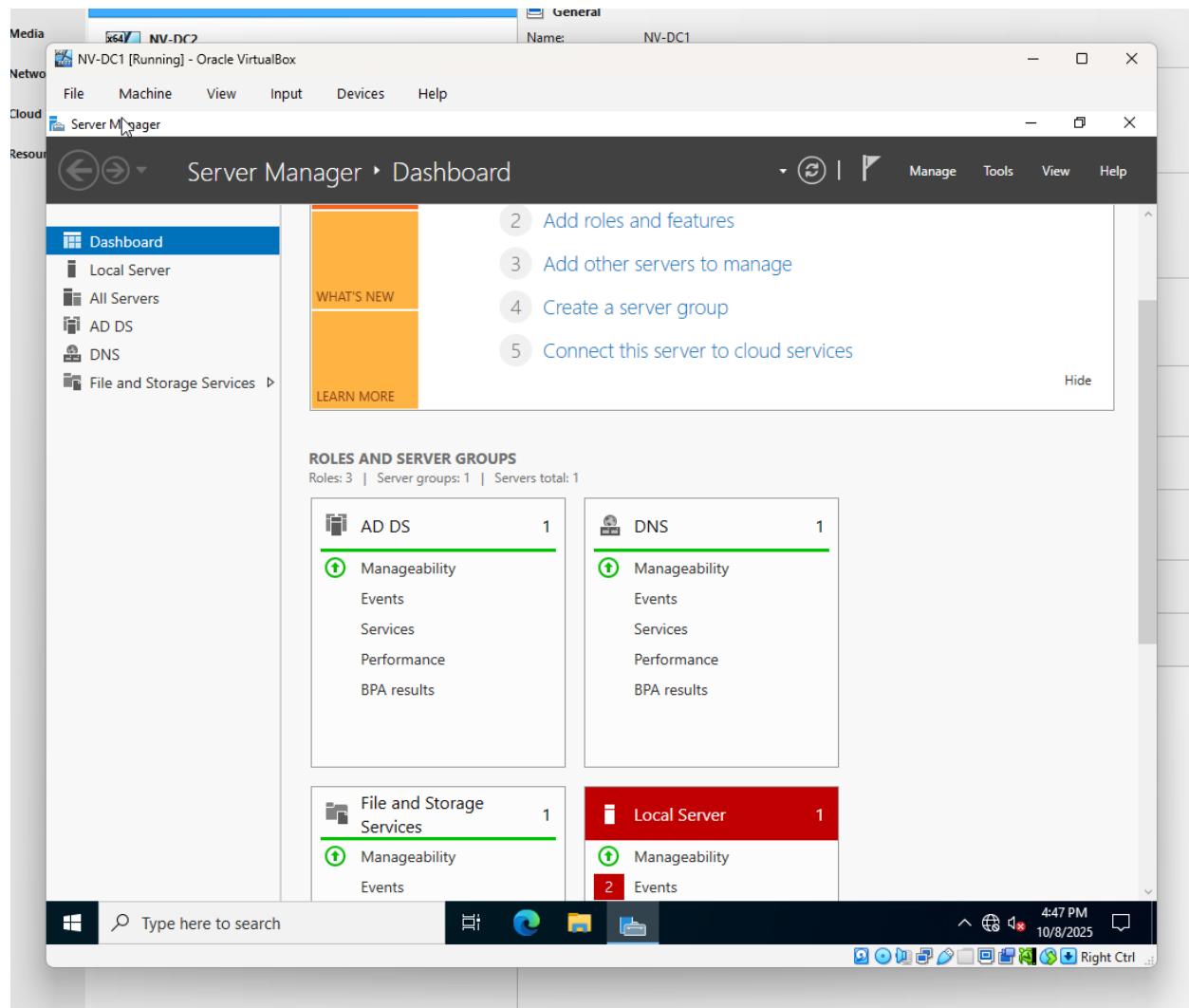
Evidence 3:

Screenshot of the **Prerequisites Check** page indicating that all checks passed successfully.



Evidence 4:

Screenshot of the **Server Manager Dashboard** after reboot, confirming that **AD DS** and **DNS Server** roles are installed and running with green status indicators.



Section 4: Task — Verifying the Deployment (25 points)

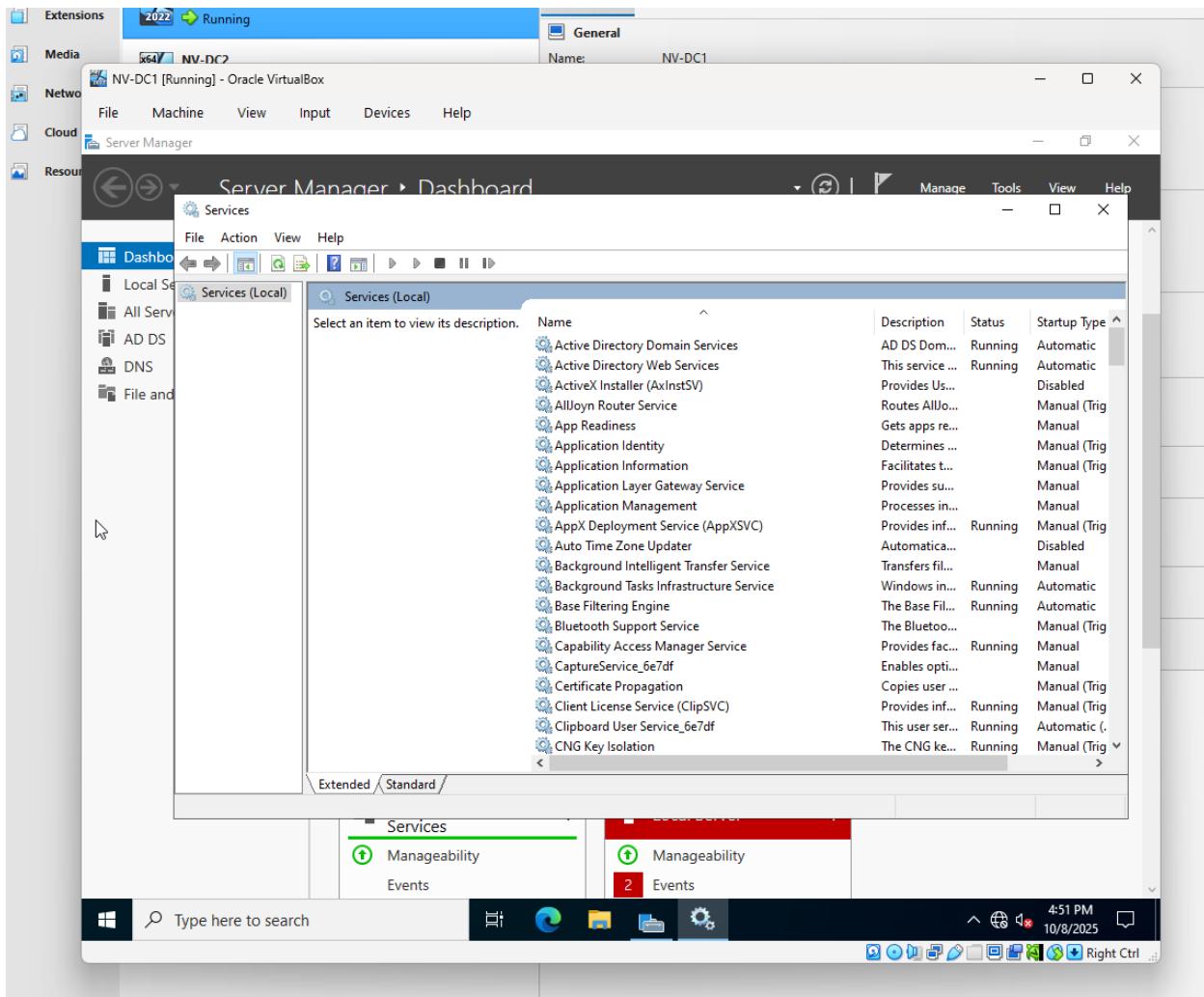
After promoting NV-DC1 to a domain controller, I verified that the Active Directory Domain Services (AD DS) and supporting components were successfully installed and operating as expected. This verification ensures that the newvue.local domain was properly created, the required services are running, and the AD DS database files were generated correctly.

Some of the key verification steps that were taken include:

1. Confirming in Server Manager that the AD DS role is listed and running.
2. Verifying that both the Active Directory Domain Services and DNS Server services are in the "Running" state.
3. Locating and confirming the existence of the core AD DS database files in the C:\Windows\NTDS directory.

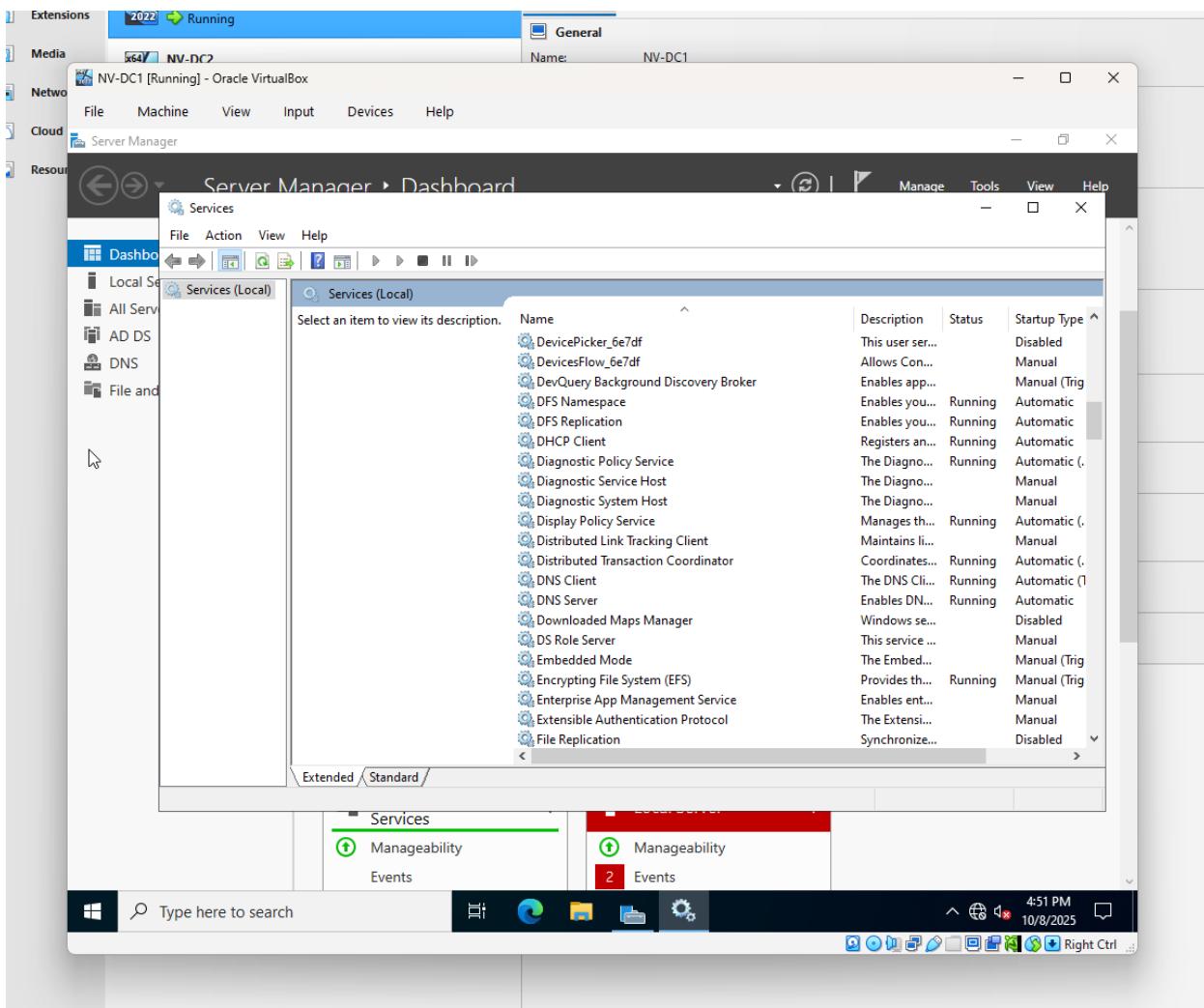
Evidence 5:

Screenshot of **Server Manager** → **Dashboard** showing the **Active Directory Domain Services** and **DNS Server** roles listed with green checkmarks.



Evidence 6:

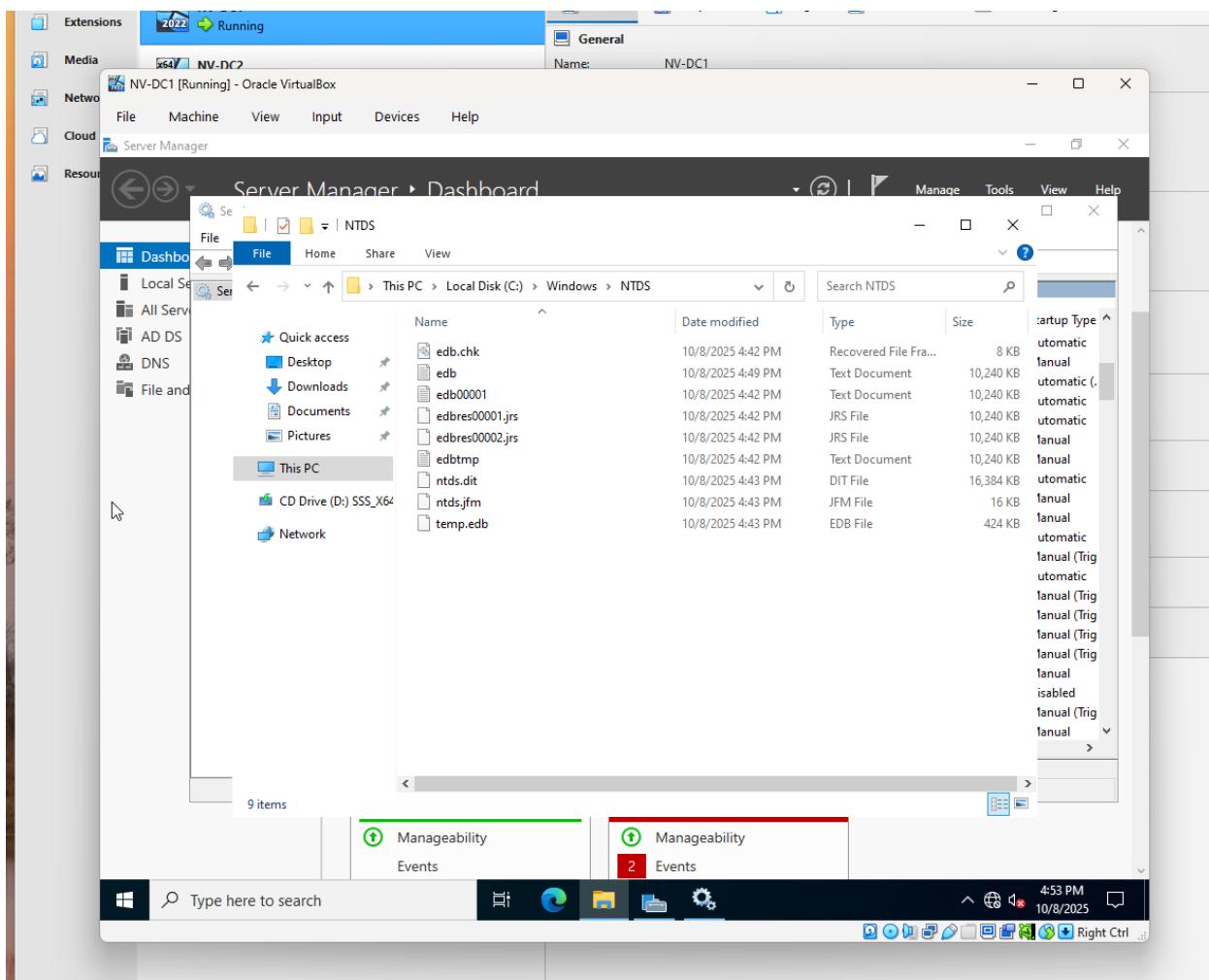
Screenshot of **Tools** → **Services** window displaying both **Active Directory Domain Services** and **DNS Server** in the **Running** state.



Evidence 7:

Screenshot of **File Explorer** → **C:\Windows\NTDS** folder showing the presence of the following key files:

- *ntds.dit* – Active Directory database
- *edb.log* – Transaction log
- *edb.chk* – Checkpoint file



This verification confirms that the domain controller is fully operational and that all necessary components of AD DS are functioning correctly within the **NewVue Health** environment.