IT 236 Project Report Form

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Date:	10/22/2025
Project Phase	Optimizing Directory Services: Transferring FSMO Roles and Enabling the GC

Section 1: Executive Summary

This phase of the NewVue Health Infrastructure Modernization Project focused on optimizing Active Directory operations by redistributing FSMO roles and enabling the Global Catalog on NV-DC2. The domain-wide FSMO roles — RID Master, PDC Emulator, and Infrastructure Master — were initially transferred from NV-DC1 to NV-DC2 using the Active Directory Users and Computers console.

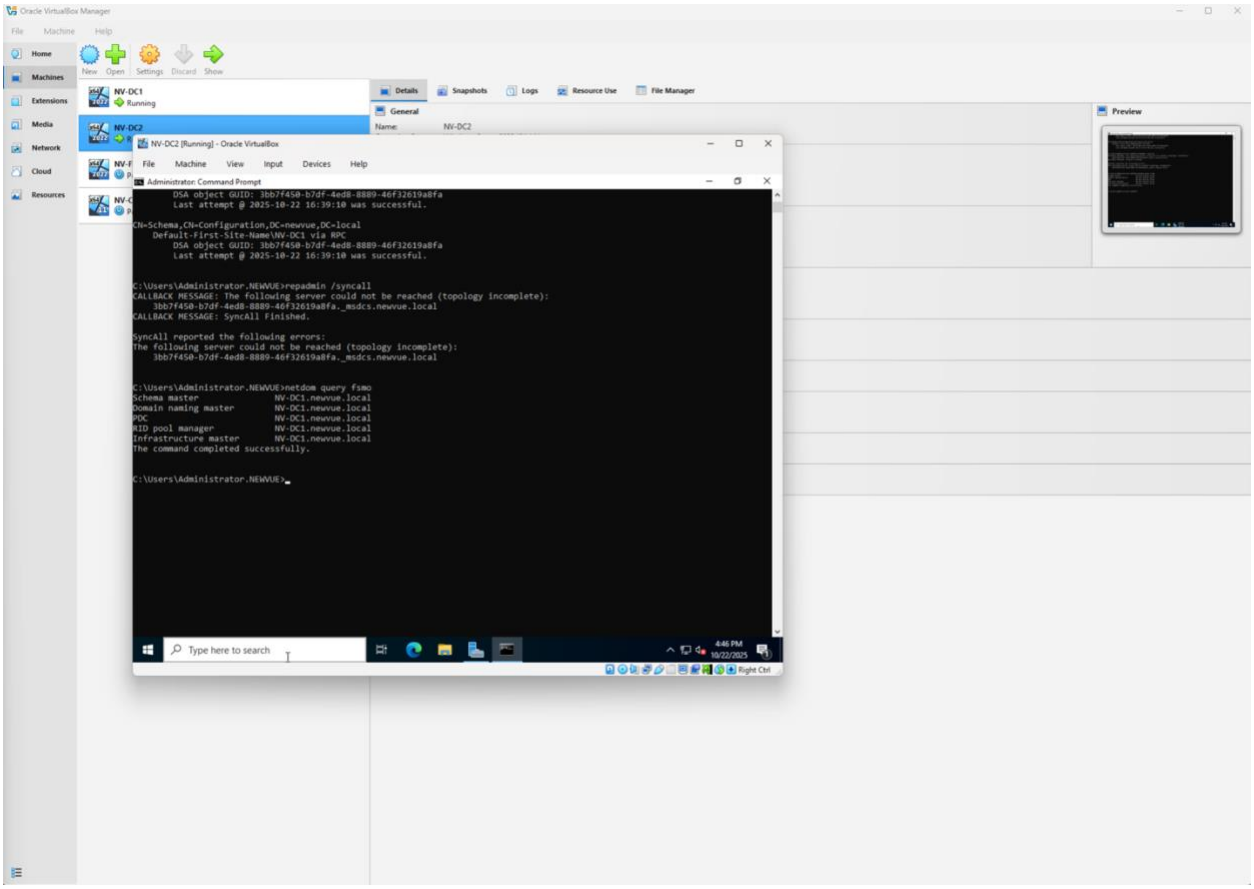
After successful transfer verification, the RID Master and PDC Emulator roles were moved back to NV-DC1 using PowerShell, leaving only the Infrastructure Master role on NV-DC2 for proper role balancing. Finally, the Global Catalog was enabled on NV-DC2 to improve authentication efficiency and support forest-wide searches. These changes resulted in a more balanced and fault-tolerant directory environment, aligning with best practices for multi–Domain Controller deployments.

Section 2: Verifying Current FSMO Role Holders (10 points)

The initial verification process involved identifying which Domain Controller owned each FSMO role before any role transfer activity was initiated.

Evidence

- **Evidence 1:** Screenshot of netdom query fsmo output showing **NV-DC1** as the holder of all FSMO roles.

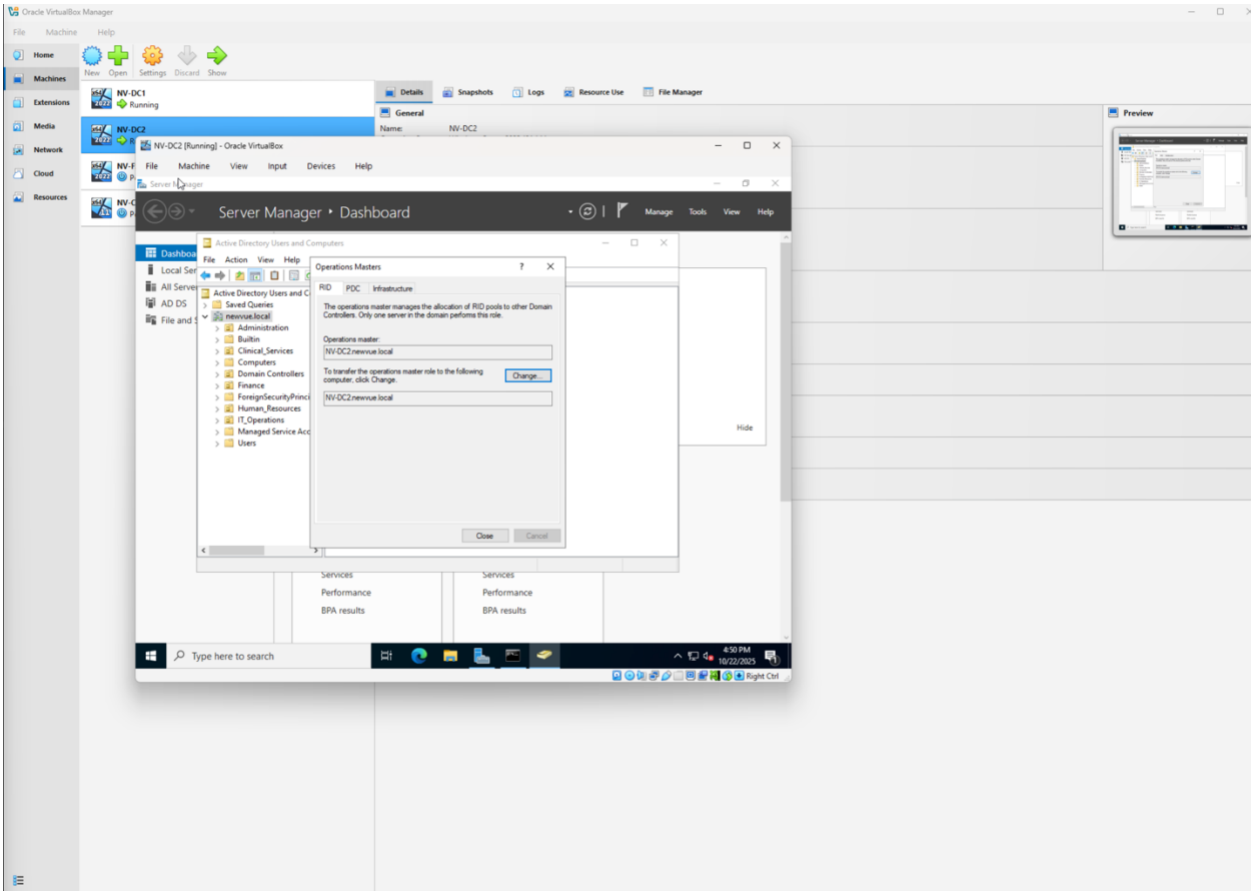


Section 3: Task — Transferring FSMO Roles and Rebalancing Placement (35 points)

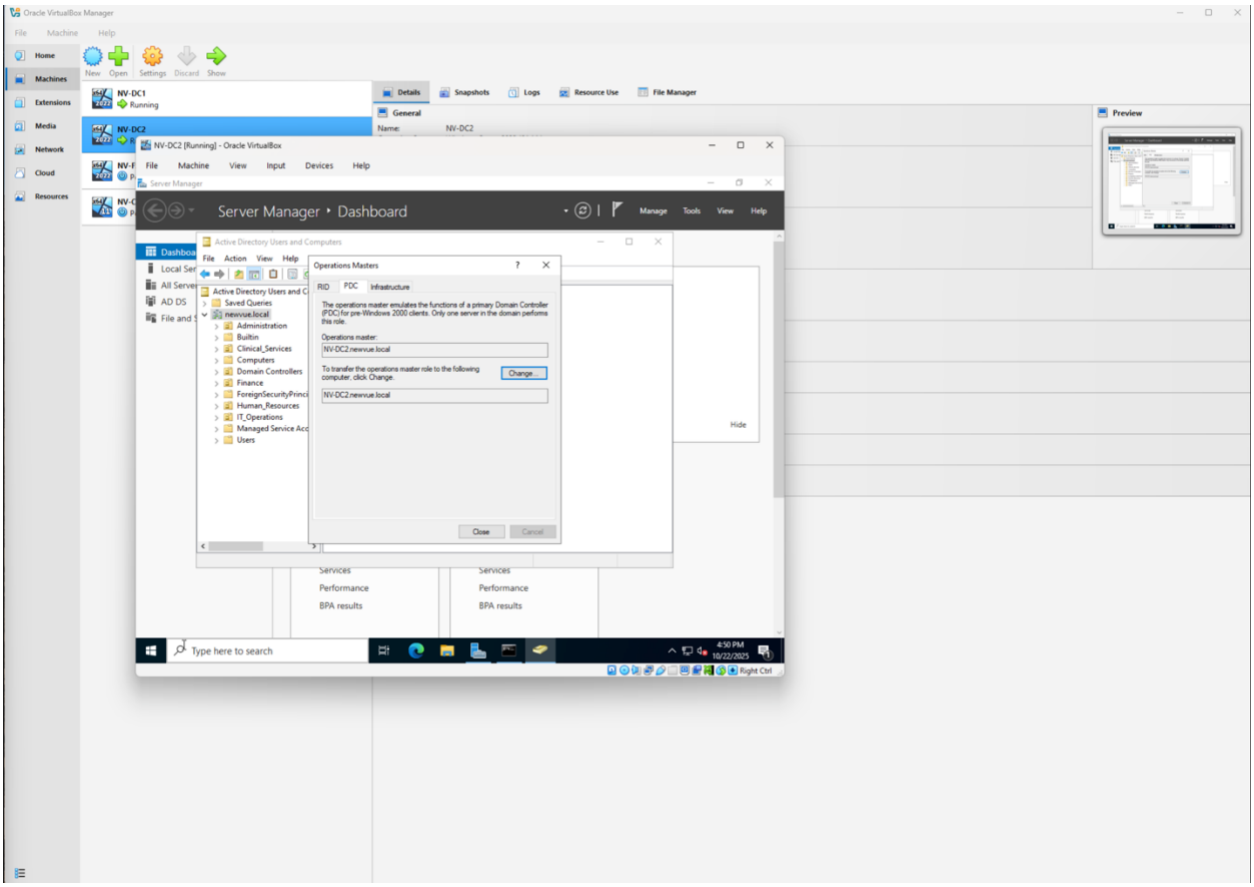
The three domain-wide FSMO roles (RID Master, PDC Emulator, and Infrastructure Master) were transferred to NV-DC2 using the GUI while connected to NV-DC2. After the transfer, PowerShell was used to move the RID Master and PDC Emulator roles back to NV-DC1, ensuring that only the Infrastructure Master remained on NV-DC2 for optimal role placement and stability.

Evidence

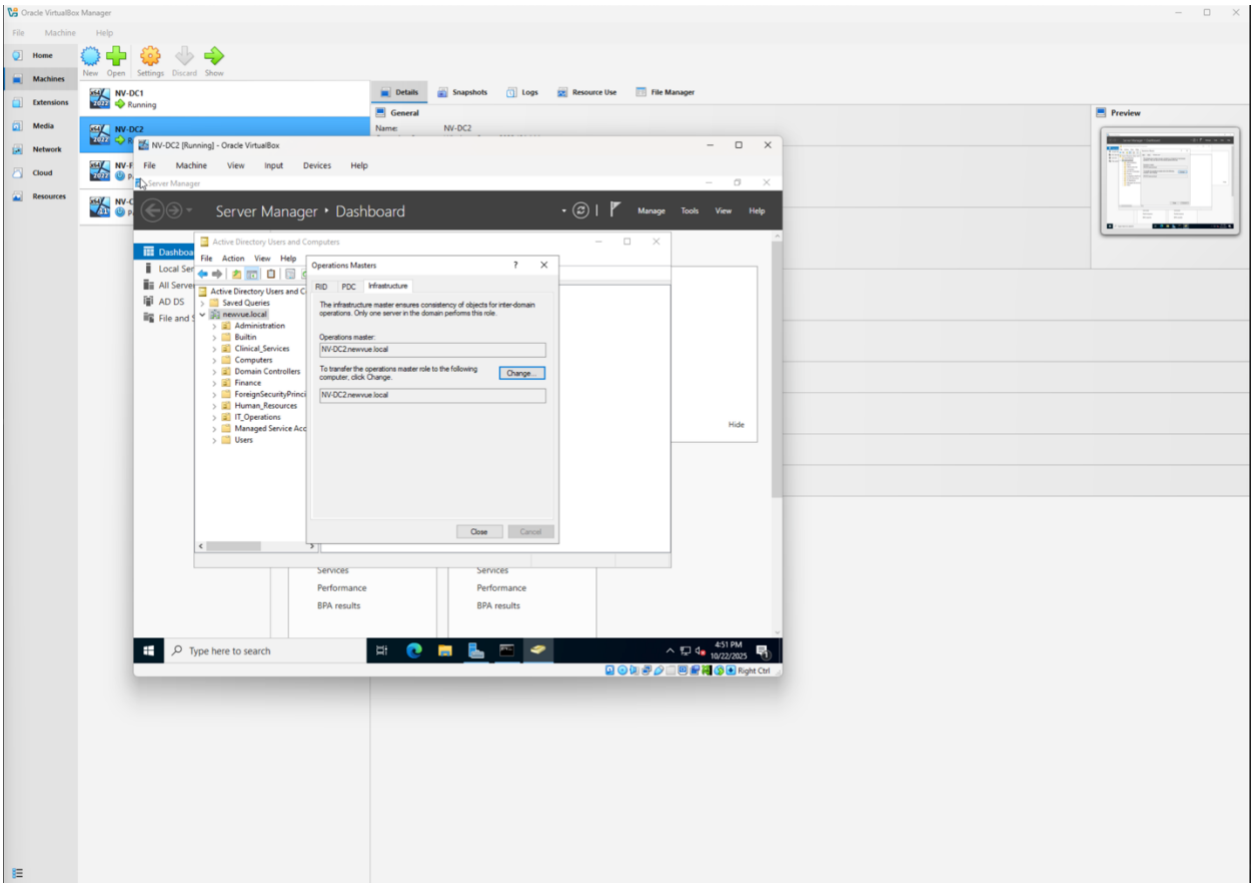
- **Evidence 2a:** Screenshot of the **RID** tab in the Operations Masters window showing **NV-DC2** as the current **RID Master**.



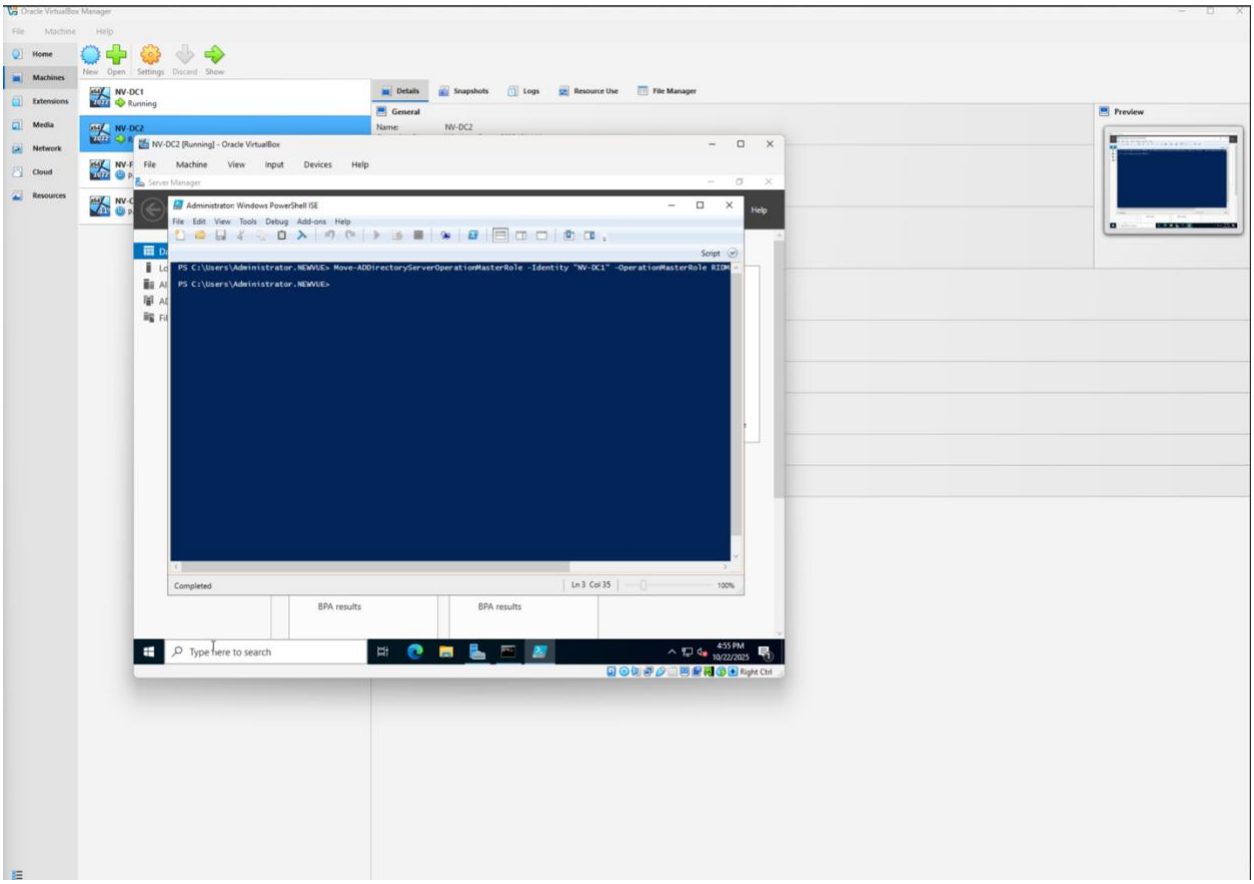
- **Evidence 2b:** Screenshot of the **PDC** tab in the Operations Masters window showing **NV-DC2** as the current **PDC Emulator**.



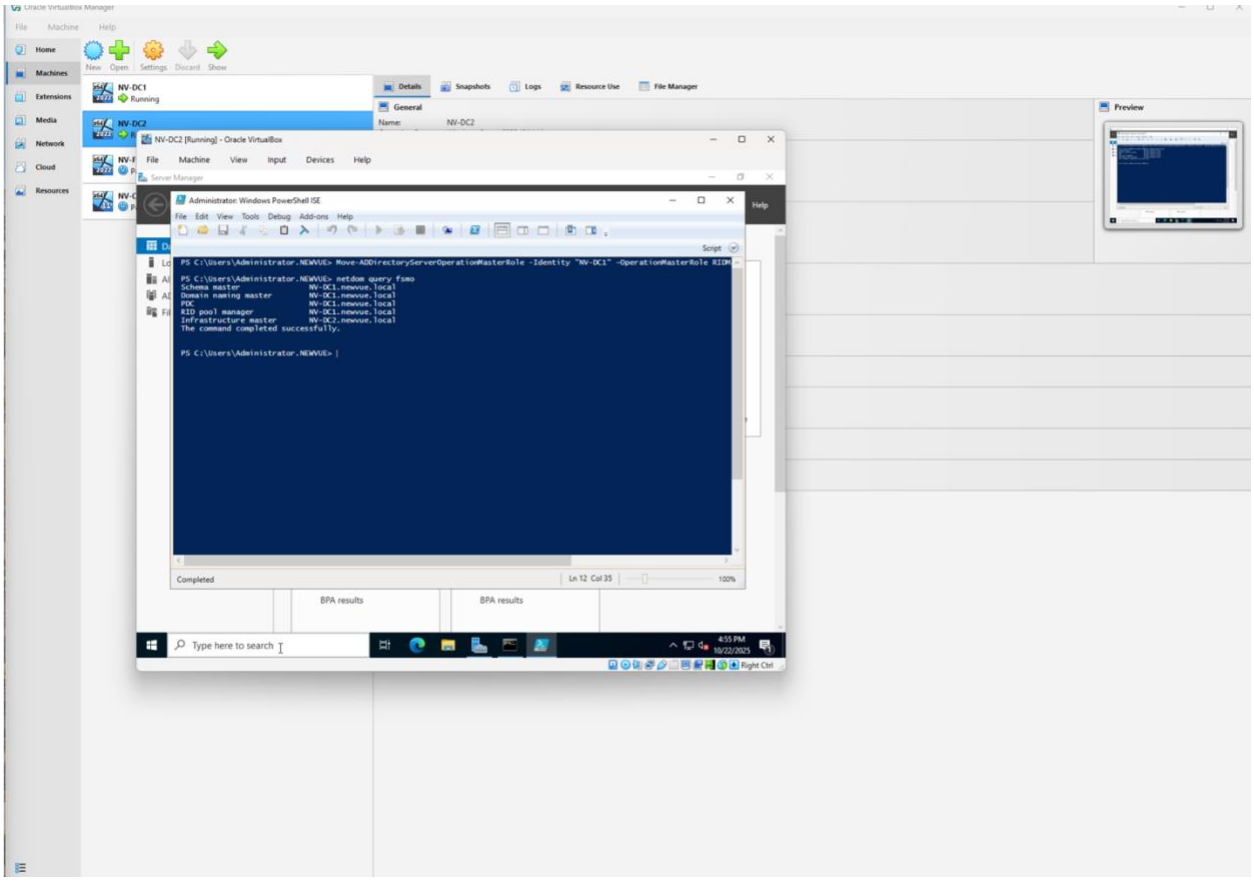
- **Evidence 2c:** Screenshot of the **Infrastructure** tab in the Operations Masters window showing **NV-DC2** as the current **Infrastructure Master**.



- **Evidence 3:** Screenshot of the PowerShell console confirming successful transfer of the **RID** and **PDC Emulator** roles back to **NV-DC1**.



- **Evidence 4:** Screenshot of the netdom query fsmo output showing **NV-DC1** as the holder of **RID** and **PDC**, and **NV-DC2** as the holder of **Infrastructure Master**.

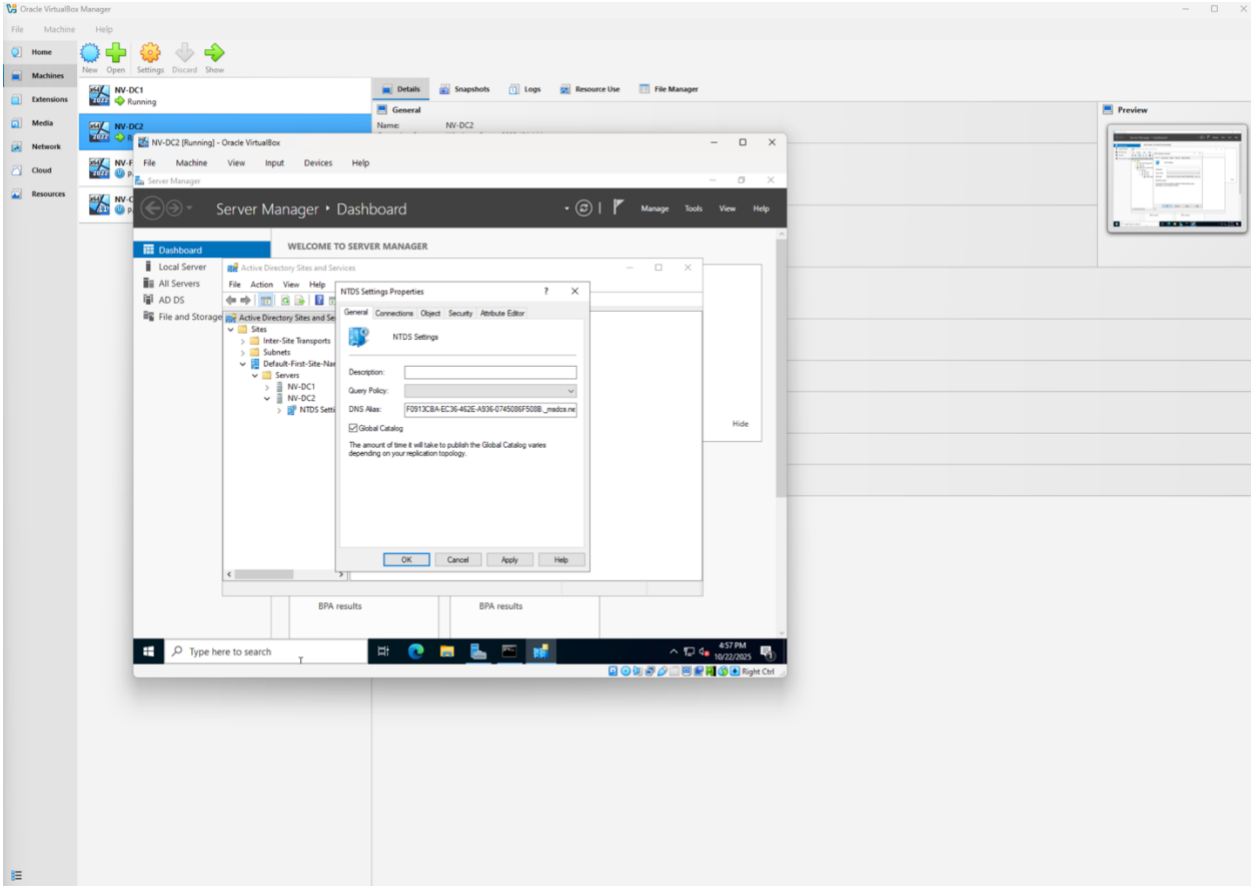

Oracle VirtualBox Manager
File
Machine
Help
Home
Machines
Extensions
Media
Network
Cloud
Resources
New
Open
Settings
Discard
Show
NV-DC1
Running
NV-DC2
Details
Snapshots
Logs
Resource Use
File Manager
General
Name:
NV-DC2
Preview
NV-DC2 [Running] - Oracle VirtualBox
File
Machine
View
Input
Devices
Help
Server Manager
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Script
PS C:\Users\Administrator.NEWVUE> Move-ADDirectoryServerOperationMasterRole -Identity "NV-DC1" -OperationMasterRole RIDM
PS C:\Users\Administrator.NEWVUE> netdom query fsmo
Schema master NV-DC1.newvue.local
Domain naming master NV-DC1.newvue.local
PDC NV-DC1.newvue.local
RID pool manager NV-DC1.newvue.local
Infrastructure master NV-DC2.newvue.local
The command completed successfully.
PS C:\Users\Administrator.NEWVUE>
Completed
Ln 12 Col 35
100%
BPA results
BPA results
Type here to search
4:55 PM
10/22/2023
Right Ctrl

Section 4: Task — Enabling the Global Catalog on NV-DC2 (10 pts)

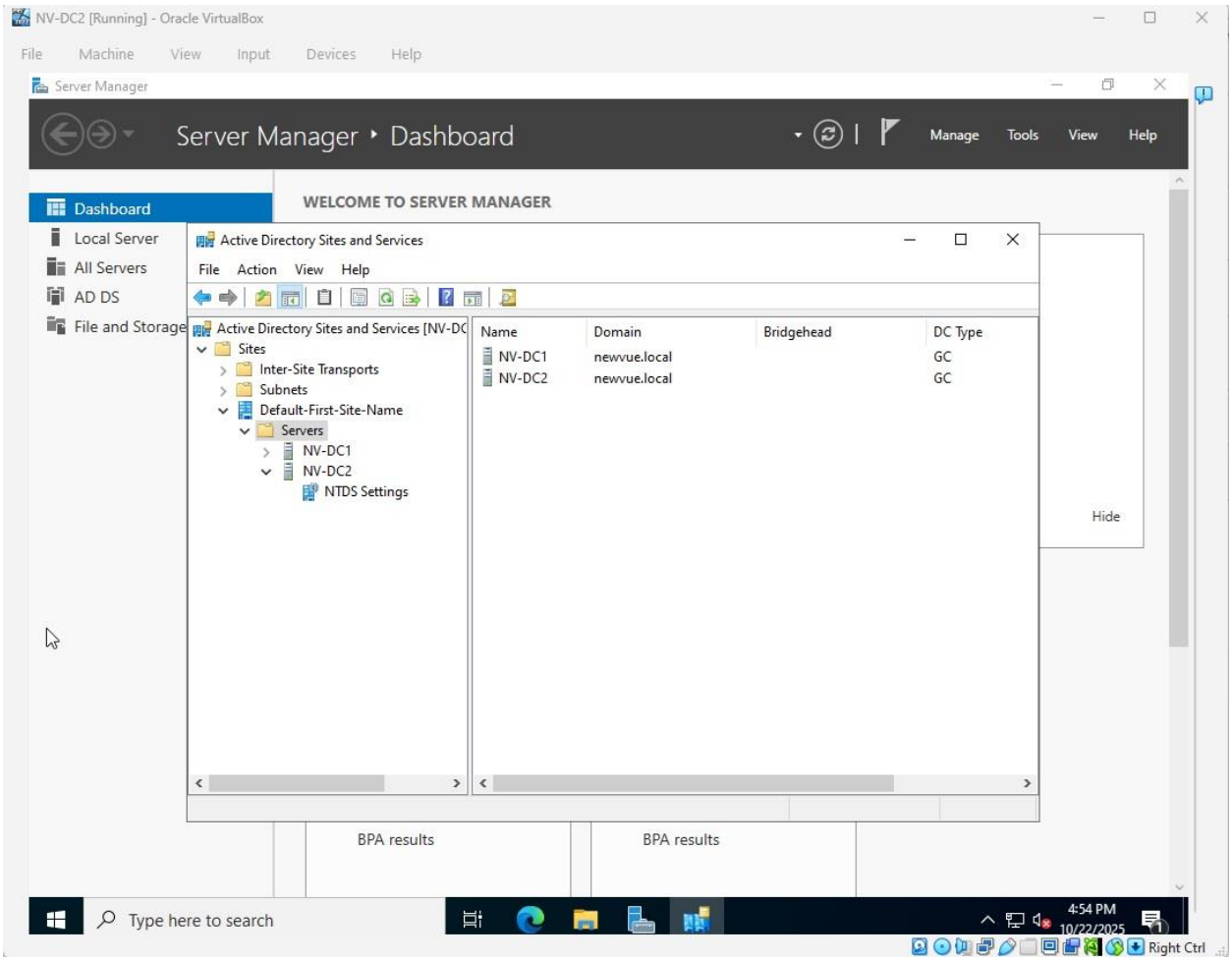
The **Global Catalog** was enabled on **NV-DC2** using **Active Directory Sites and Services** to enhance directory search performance and authentication resilience.
Under **NTDS Settings**, the Global Catalog option was activated and verified to ensure successful registration and replication.

Evidence

- **Evidence 5:** Screenshot of **NTDS Settings → Properties** showing the **Global Catalog** option checked.



- **Evidence 6:** Screenshot of **Active Directory Sites and Services** displaying **NV-DC2** listed as a **Global Catalog** under NTDS Settings.



Section 5 :Task - Verifying Global Catalog Functionality (10 points)

The configuration was validated by confirming that **NV-DC2** was recognized as a Global Catalog server using the **nltest** command. Successful output confirmed that **NV-DC2** was functioning as an active GC and was discoverable within the domain.

Evidence

- **Evidence 7:** Screenshot of the nltest /dclist:newvue.local output showing **NV-DC2** designated as a **Global Catalog (GC)** server.