FSMO Role Transfer - Windows Server 2012 R2 To Windows Server 2016:

Date: 10-08-2023

FSMO Role Transfer - Windows Server 2012 R2 To Windows Server 2016:

1. Join Windows server 2016 to existing Windows server 2012 R2 Domain.
2. Prepare Windows Server 2012 R2 domain for Windows Server 2016 domain controller.
3. Install an additional domain controller for an existing Windows Server 2012 R2 domain.
4. FSMO role transfer to new Windows Server 2016.

First open Windows Server 2012 R2 and verify the details.

Domain - KTG.local

Computer - WIN-VDJRK9P9JIT

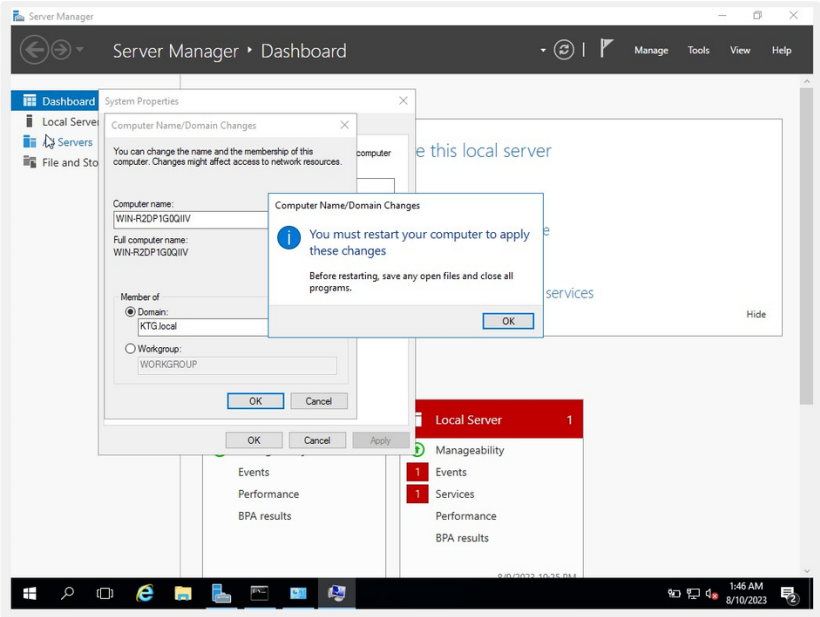
IP Address: Ethernet - 192.168.1.5
Ethernet 2 - 192.168.1.8

We should open Domain Controllers and check the computers section; there we have to add Windows Server 2016. We should use Windows Server 2012 R2 IP address as DNS server of Windows Server 2016.

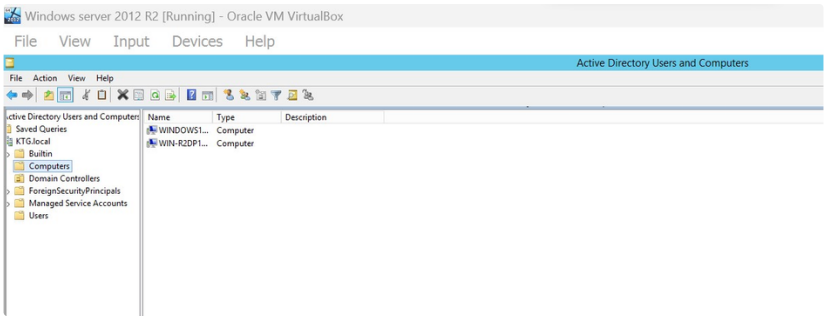
In Windows Server 2012 R2 check Active Directory Users and Computers > Domain Controller here we can see WIN-VDJRK9. And check computers here we need to add Windows Server 2016.

Open Windows Server 2016 > Control Panel > System Security > System Name - WIN-R2DP1GOQIIV (Work Group). We need to check the IP address, DNS server and connectivity between both the servers.

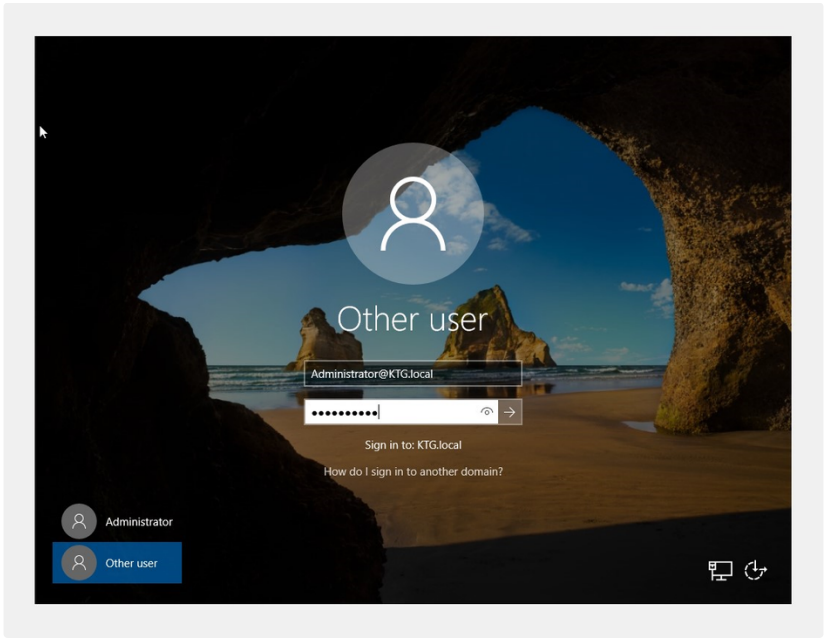
Now we need to add the domain of Windows Server 2012 R2 to Windows Server 2016 as the domain name is KTG.local, after giving the domain name, we need to restart the system.



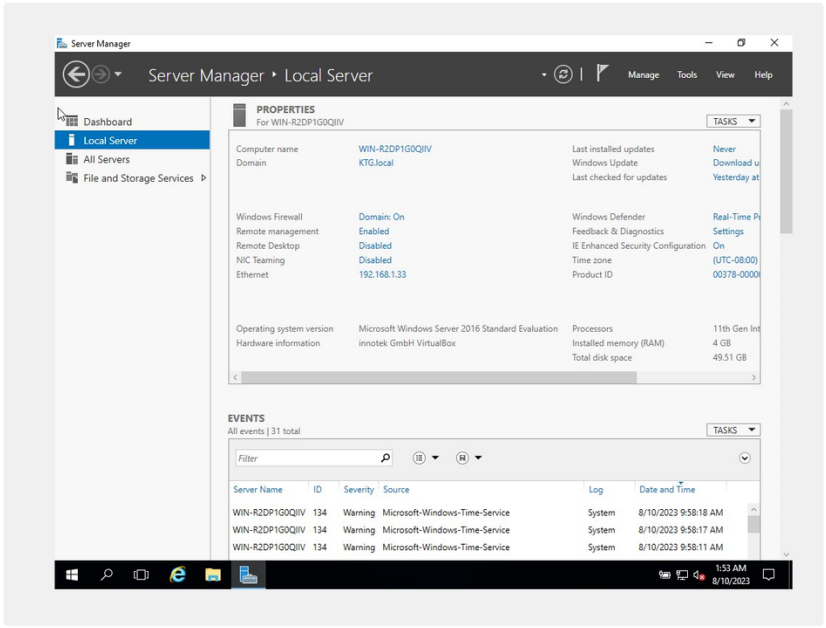
After restarting the system, we need to check that our windows server 2016 need to add to Active Directory Users and Accounts.



Here we can see that Windows Server 2016 with name WIN-R2DP1GOQIIV is added to Active Directory Users and Accounts. And now we can login into the Windows Server 2016 as Adminitrator@KTG.local as the username.

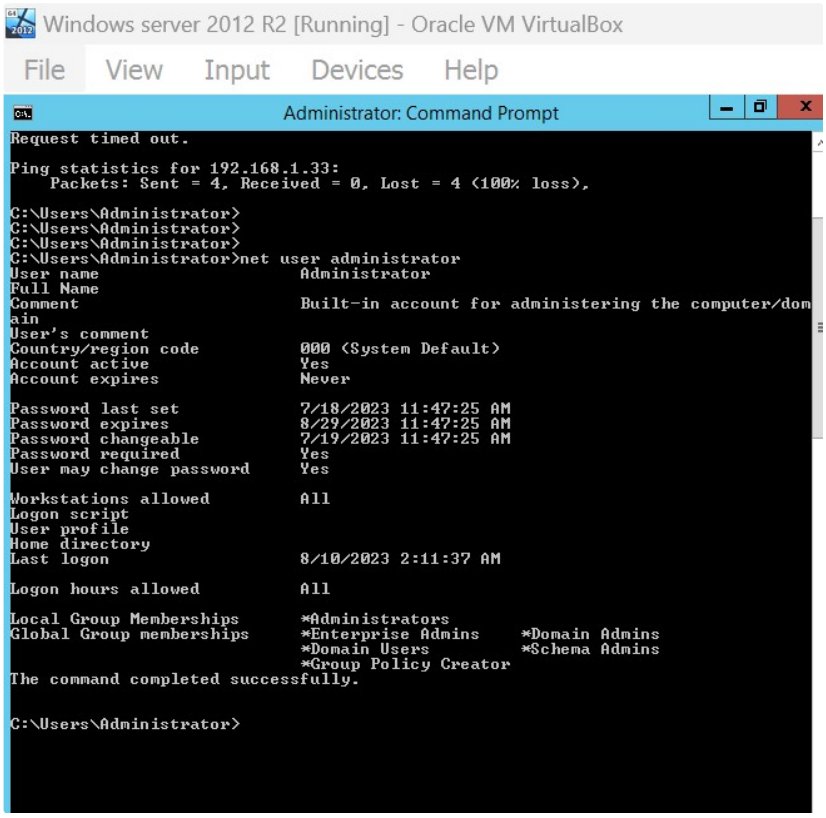


After logging in we can see the dashboard of server manager as follows.

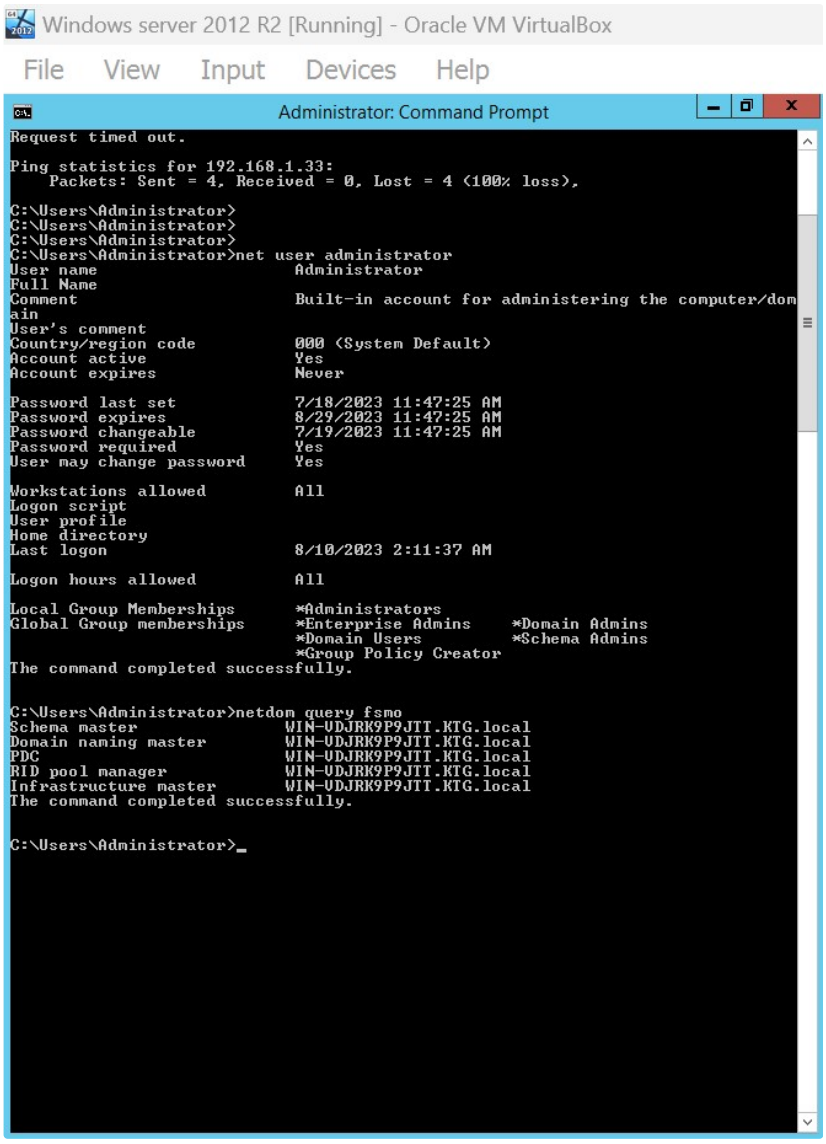


- Here we need to update the Schema from Windows Server 2012 R2.

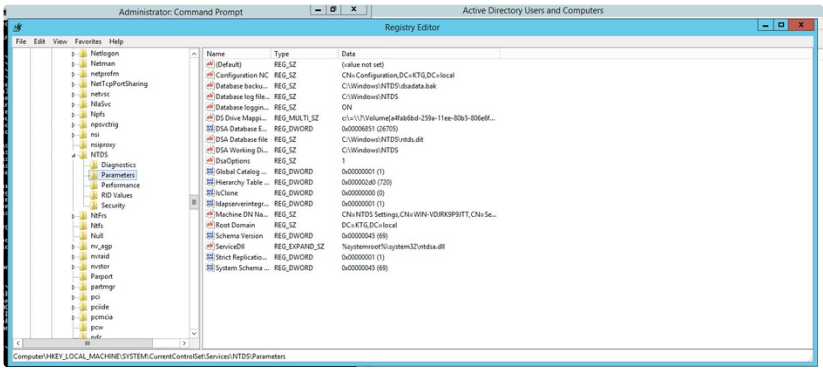
- To update the Schema process we need to check the privileges of administrator rights and global group membership. To check these privileges open command prompt and use **net user administrator** command.



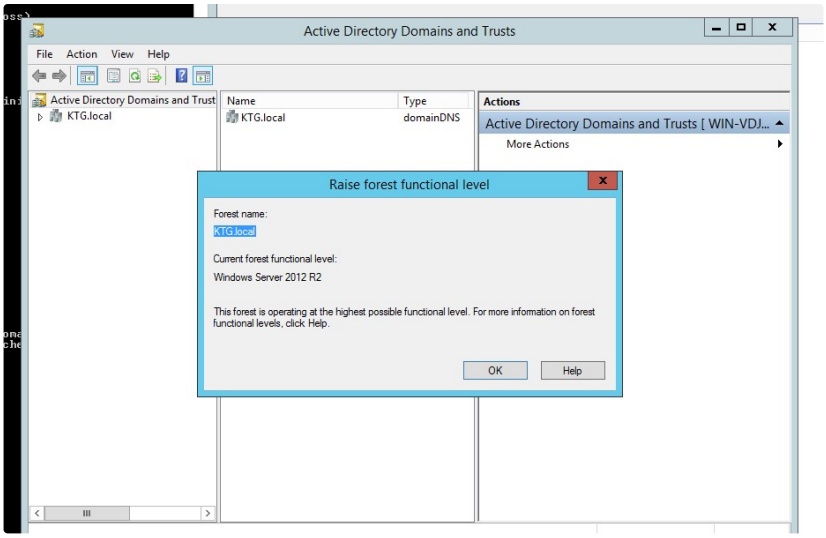
- To check FSMO roles use **netdom query fsmo** command.



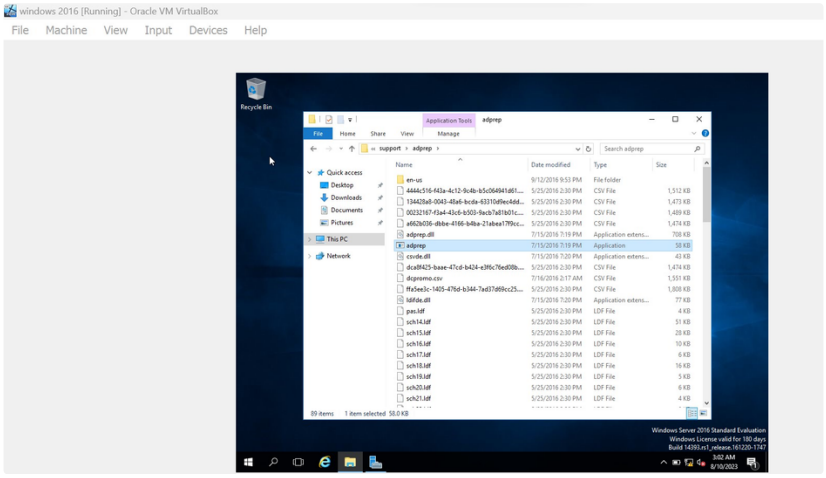
- To check the current schema version open run and use **regedit** command this will help you to open registry editor. Follow the sequence after the editor is opened.
- HKEY_Local machine > System > Current Control Set > Services > NTDS > Parameters > Current Schema Version. Here schema version is 69, we should upgrade it to 87.



- To check domain forest functional level open run to use **domain.msc** command we will get Active Directory Domains and Trust window. From the left-hand side, we can see Active Directory Domain and Trust, by right clicking we should select an option of raise forest functional level. Now we can see current forest functional level as Windows Server 2012 R2.

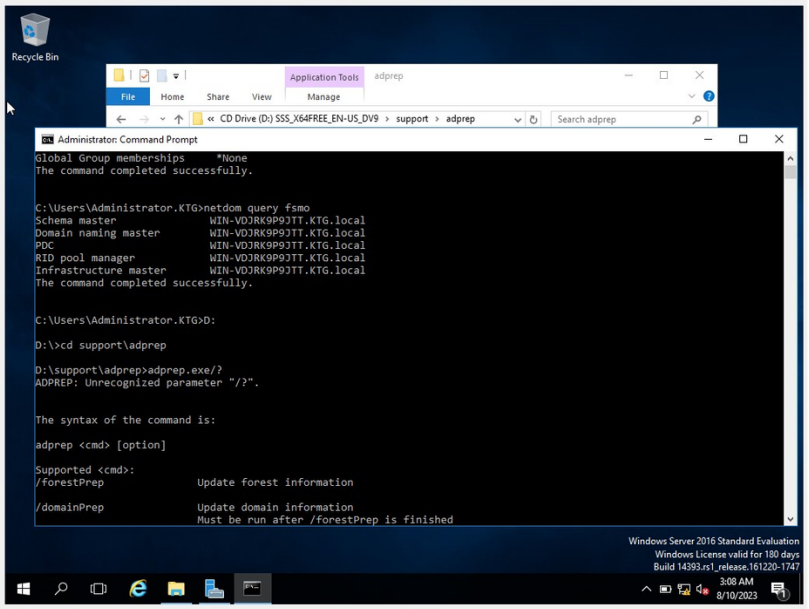


- From Windows Server 2016 open This PC give a right click on CD drive and open >> support >> adprep. We use these adprep to update the schema.

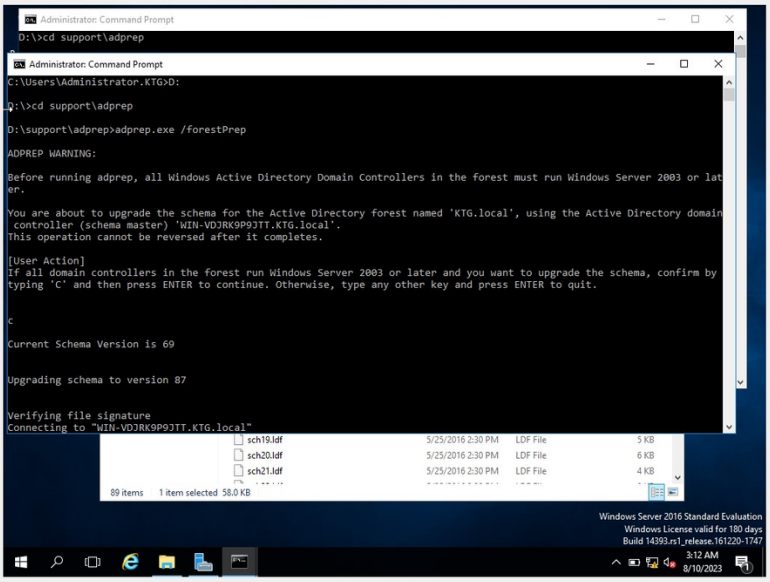


- Open Command Prompt and use the following commands:

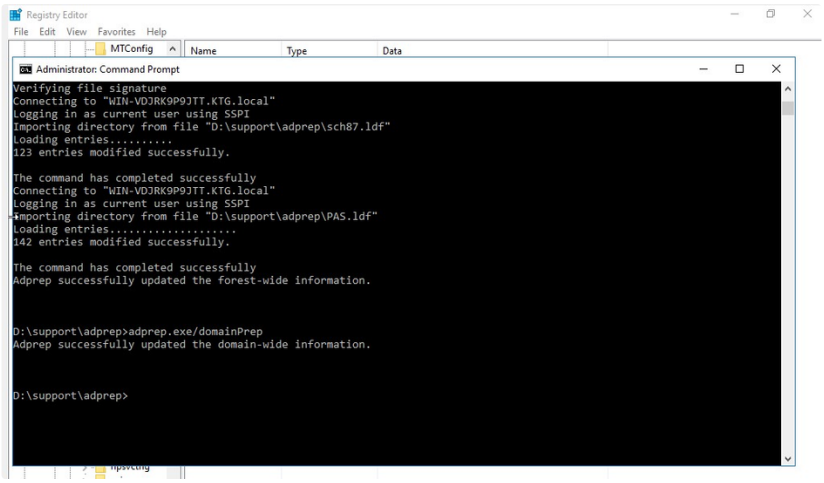
1. D :
2. cd support\adprep
3. adprep.exe/?



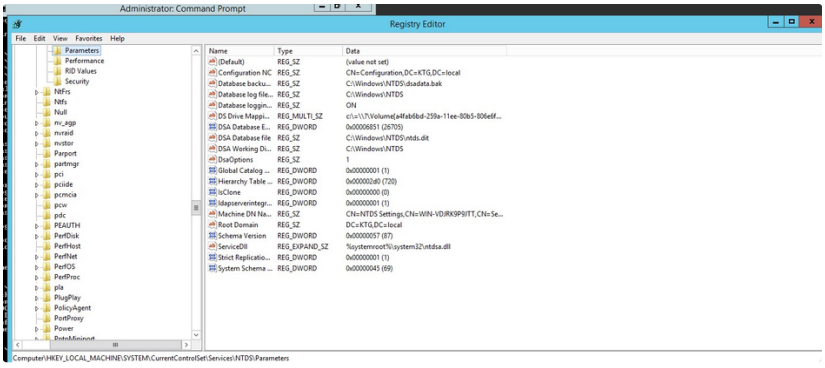
- By using the above commands, we get the instructions of further proceedings. Which helps in updating the schema from 69 to 87. We use /forestprep command to update the forest information.



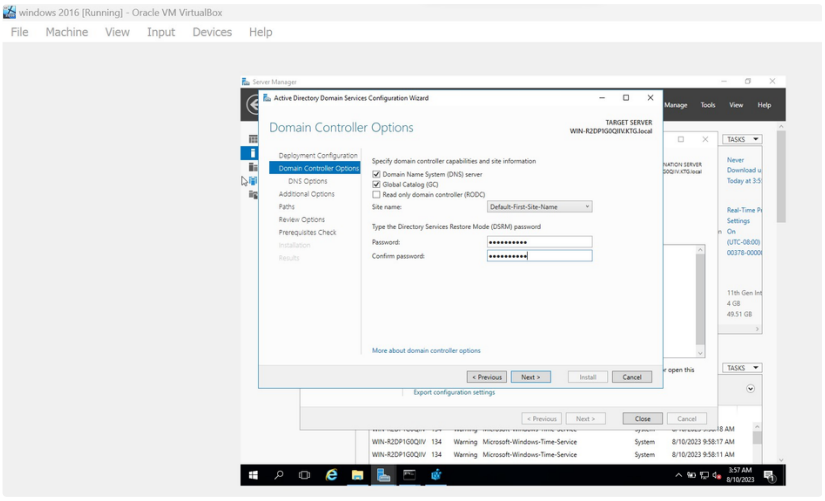
- As shown in the below now we are updated the forest-wide information and domain-wide information.



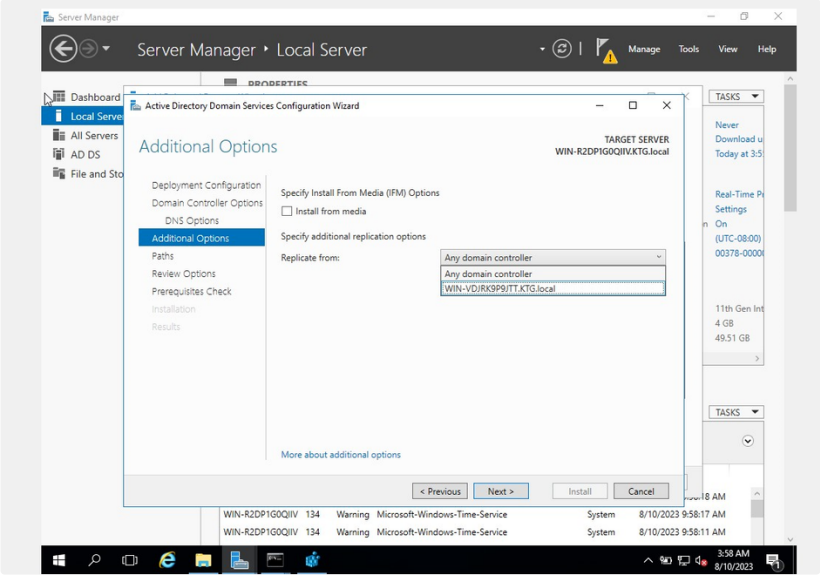
- We can check the updated version of schema.



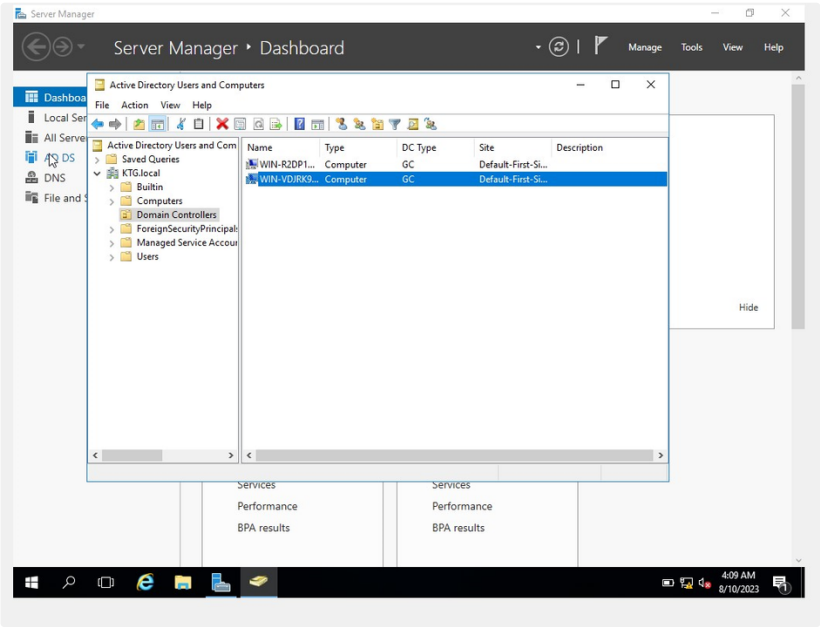
- Now we need to work on Windows Server 2016, go to the dashboard of server manager, click on add roles and features, click on Active directory domain services. Make sure that from domain controllers, global catalog and DNS options are selected.



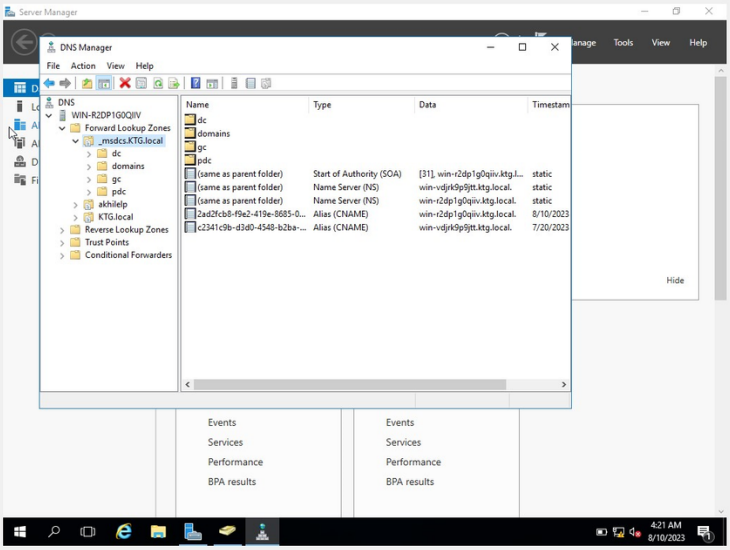
- After checking the DNS and global catalog from domain controllers, from additional options we have to select the Windows Server 2012 R2 in the replicate from section.



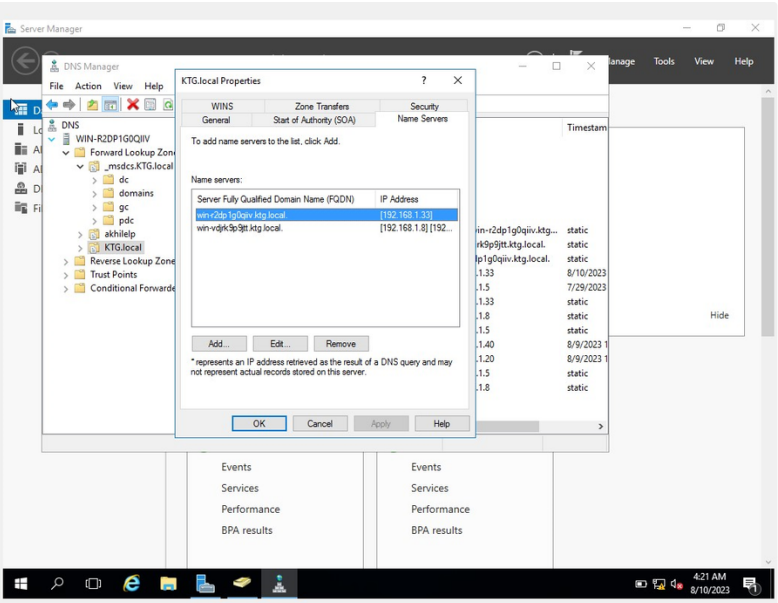
- After the completion of installation, the system will get restarted. We can check that both systems are added to the domain controllers.



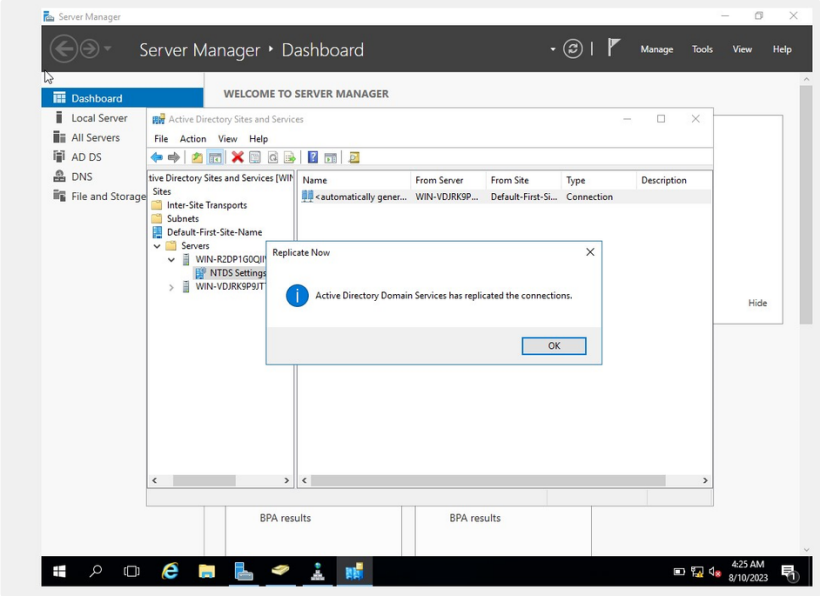
- Now open DNS >> WINR2DP1GOQIIV >> Forward lookup zone >> _msdcs.KTG.local >> we can see that we two name servers.



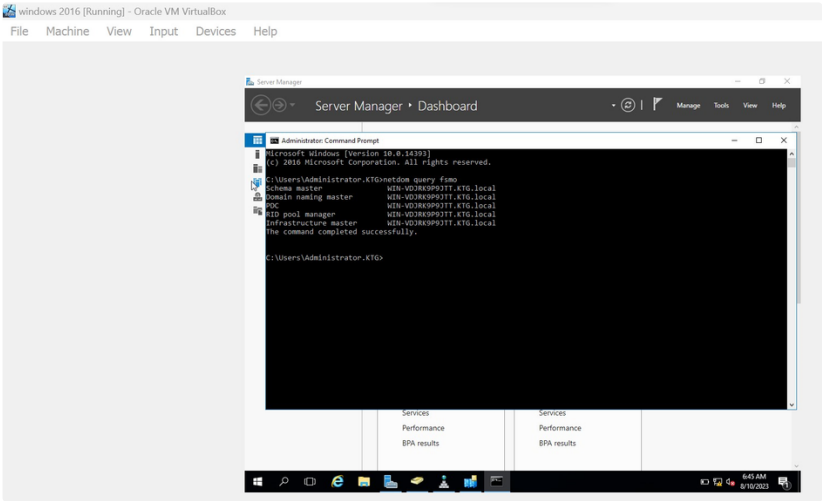
- Now right click on KTG.local >> Properties >> Name server and click OK.



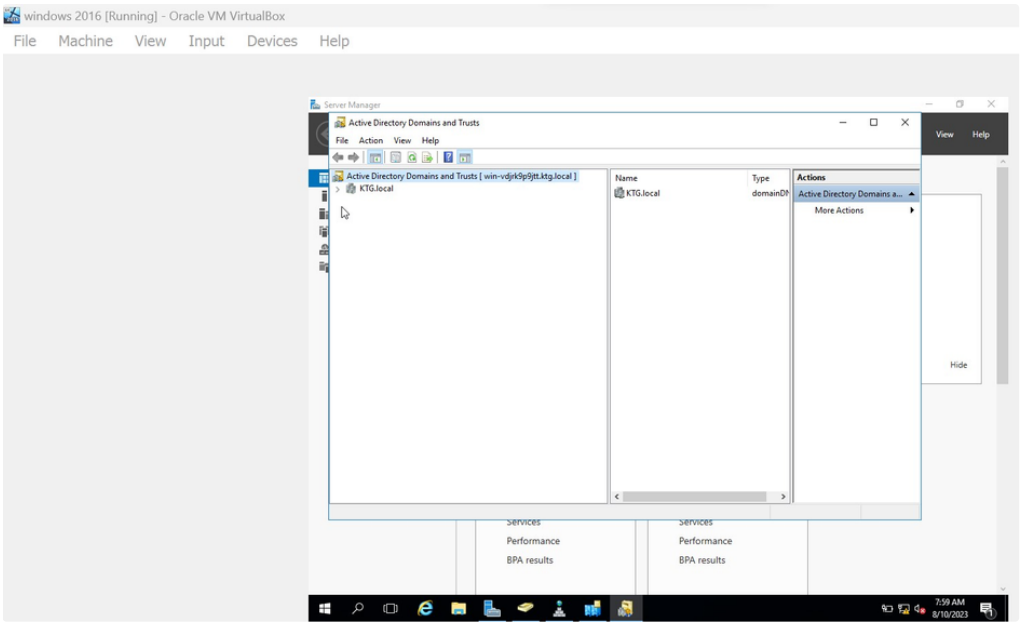
- We need to replicate the connections between Windows Server 2012 R2 and Windows Server 2016.



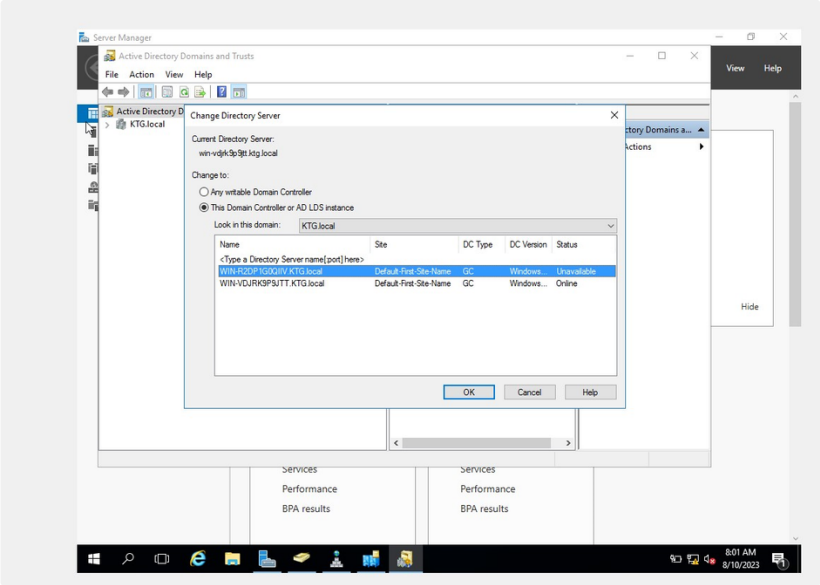
- To transfer the fsmo roles from Windows Server 2012 R2 to Windows Server 2016 we need to check the fsmo roles from command prompt by using netdom query fsmo, we can observer that all of the roles are in Windows Server 2012 R2.



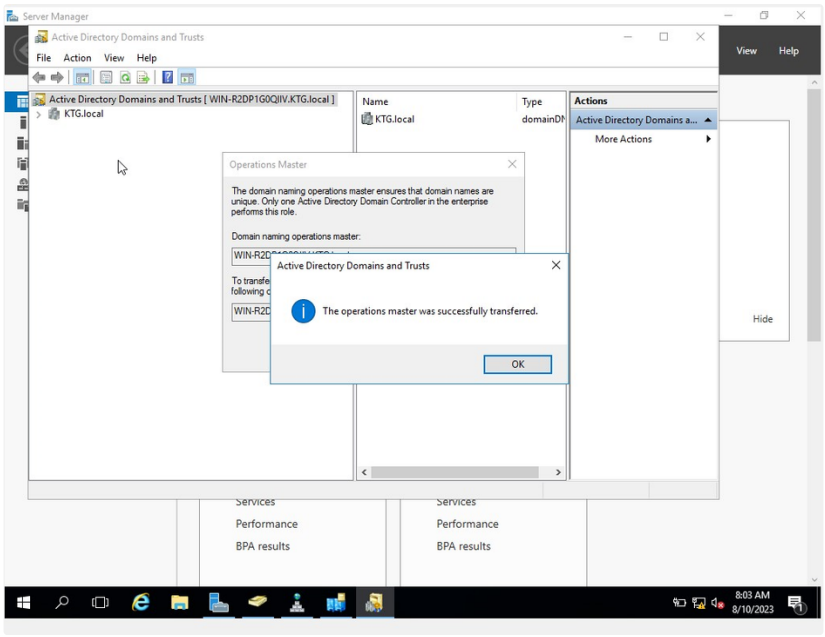
- Firstly, we are changing the domain naming master, to open it use a command of domain.msc in run. That is the console for Active Directory Domains and Trust. Here Active Directory Domains and Trusts are assigned in Windows Server 2012 R2.



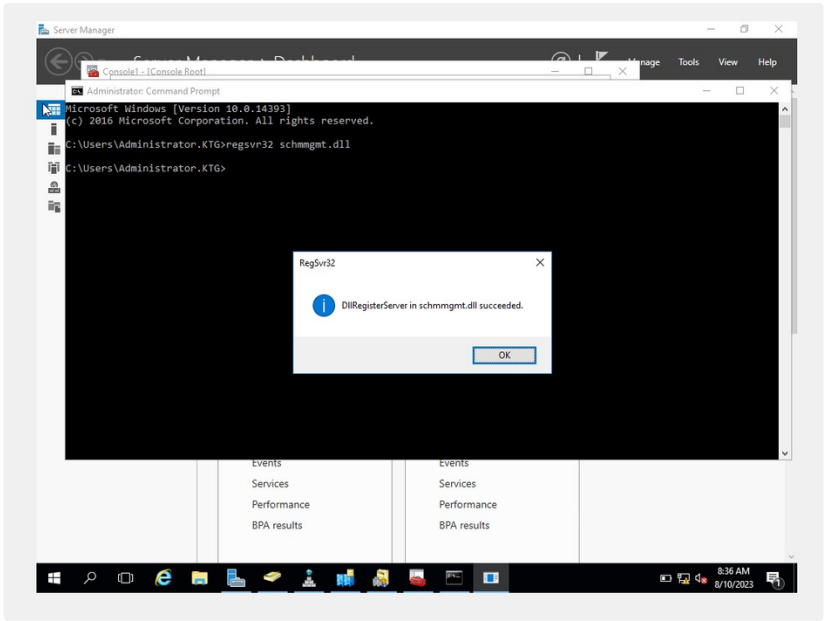
- Give a right click on Active Directory Domains and Trusts, change the domain controller.



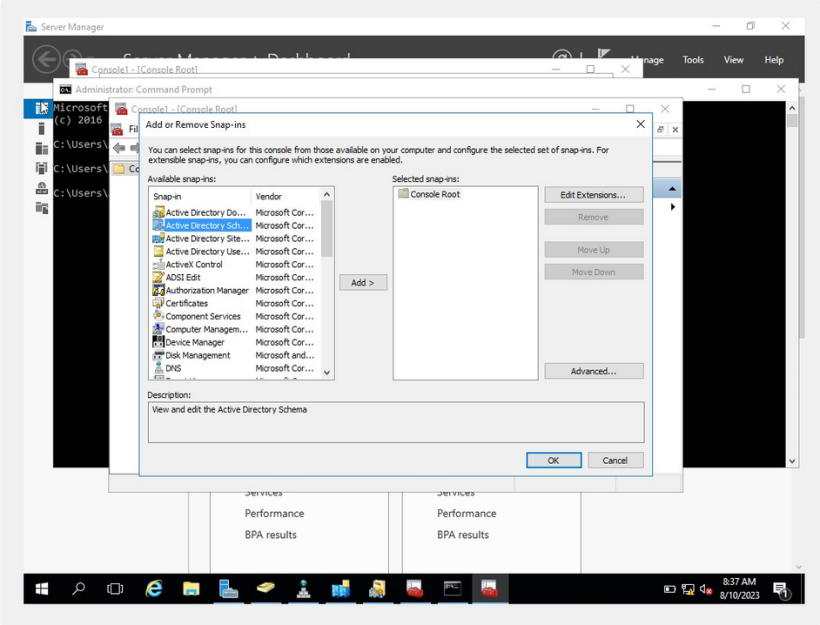
- After changing the domain controller, change the operation master to Windows Server 2016. By this domain naming master is transferred to Windows server 2016.



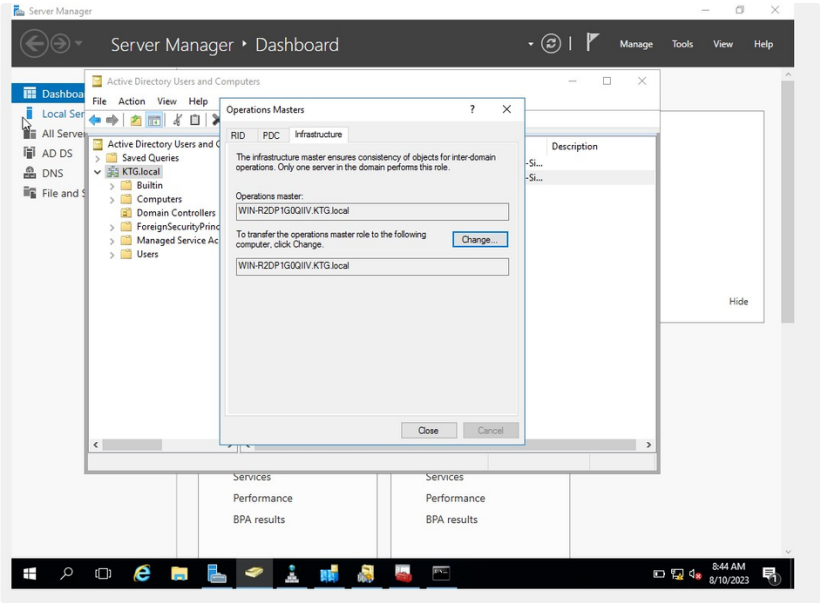
- To transfer the schema master, use the command of mmc on run, console root will be opened. Under file we have an option of Add/remove snap in, we can see Active Directory Domain and Trust but there is active directory schema.
- To add a schema, we need to open command prompt and use a command of regsvr32 schmmgmt.dll. Now we are successfully registered.



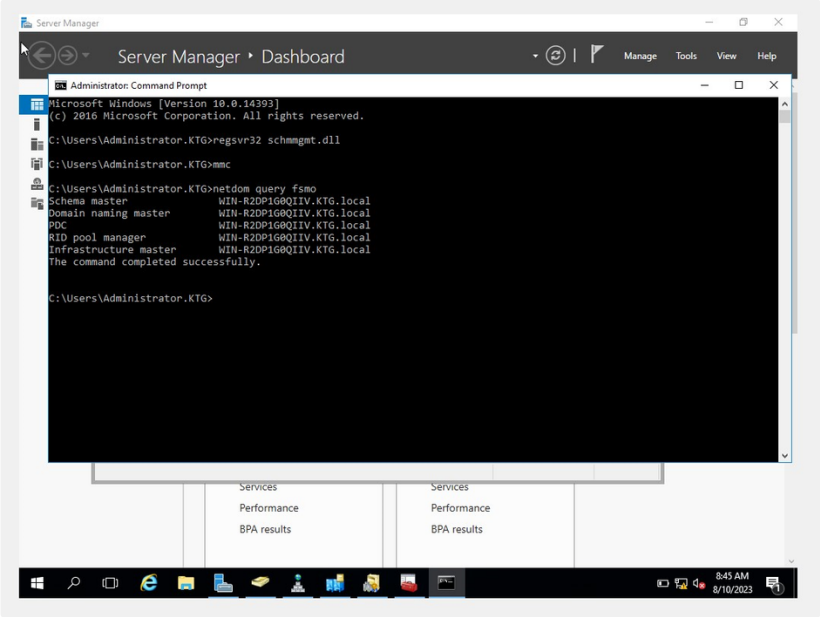
- Now open mmc to open the console root and click add/remove snap in under the file, now we can see Active Directory Schema, click it and add and ok it.



- Open Active Directory Schema and right click on it, change the domain controllers and change the operation master, by this schema master is transferred.
- Open the Active Directory Users and Computers, right click on KTG.local and open operation master, by this we can transfer PDC, RID, Infrastructure.



- After completing the process of transferring the FSMO roles, we need to check the status of FSMO roles from command prompt. We can see that FSMO roles are successfully transferred from Windows Server 2012 R2 to Windows Server 2016.



The PDC Emulator role is crucial for time synchronization and compatibility with older Windows clients. It's often the first role to be transferred to ensure time consistency in the domain.