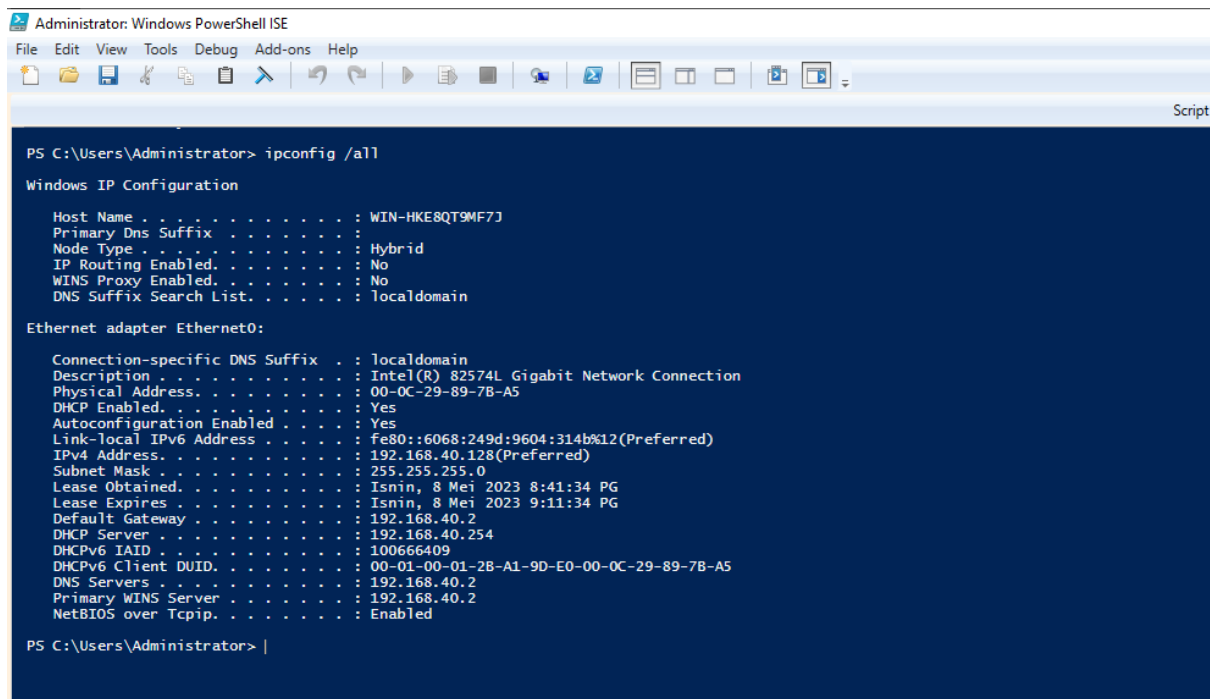


Name: Muhammad Aminuddin Bin Ramli

Id Number: CA20142

Configure Network Access Protection



```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
Script

PS C:\Users\Administrator> ipconfig /all

Windows IP Configuration

Host Name . . . . . : WIN-HKE8QT9MF7J
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : localdomain

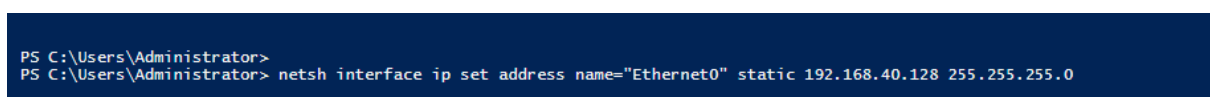
Ethernet adapter Ethernet0:

Connection-specific DNS Suffix . : localdomain
Description . . . . . : Intel(R) 82574L Gigabit Network Connection
Physical Address. . . . . : 00-0C-29-89-7B-A5
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::6068:249d:9604:314b%12(Preferred)
IPv4 Address. . . . . : 192.168.40.128(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Isnin, 8 Mei 2023 8:41:34 PG
Lease Expires . . . . . : Isnin, 8 Mei 2023 9:11:34 PG
Default Gateway . . . . . : 192.168.40.2
DHCP Server . . . . . : 192.168.40.254
DHCPv6 IAD . . . . . : 100666409
DHCPv6 Client DUID. . . . . : 00-01-00-01-2B-A1-9D-E0-00-0C-29-89-7B-A5
DNS Servers . . . . . : 192.168.40.2
Primary WINS Server . . . . . : 192.168.40.2
NetBIOS over Tcpip. . . . . : Enabled

PS C:\Users\Administrator> |
```

Figure 1: Get the ip address of our machine

Here, by input the ipconfig /all to know the ip address and subnet mask of our machine, in order to configure DHCP.



```
PS C:\Users\Administrator>
PS C:\Users\Administrator> netsh interface ip set address name="Ethernet0" static 192.168.40.128 255.255.255.0
```

Figure 2: Configure network interface

Here we used command “netsh interface ip set address” to configure the ip address setting for the network interface, It is used to set the ip address, subnet mask, default gateway and DNS server for specified network interface. However in order to run this command, we need to run the power shell command with administrator privileges.

```
PS C:\Users\Administrator> add-windowsfeature dhcp -IncludeManagementTools

Success Restart Needed Exit Code      Feature Result
-----
True     No                NoChangeNeeded {}
```

Figure 3: Install DHCP Server role

Here, add-windowsFeature DHCP is a command in power Shell that is used to install DHCP Server Role on windows server. We used this command because we want to install server roles, role services and features on windows server.

```
PS C:\Users\Administrator> Add-WindowsFeature NPAS,NPAS-Policy-Server -IncludeManagementTools
Add-WindowsFeature : ArgumentNotValid: The role, role service, or feature name is not valid: 'NPAS-Policy-Server'. The name was not found.
At line:1 char:1
+ Add-WindowsFeature NPAS,NPAS-Policy-Server -IncludeManagementTools
+ ~~~~~
+ CategoryInfo          : InvalidArgument: (NPAS-Policy-Server:String) [Install-WindowsFeature], Exception
+ FullyQualifiedErrorId : NameDoesNotExist,Microsoft.Windows.ServerManager.Commands.AddWindowsFeatureCommand

Success Restart Needed Exit Code      Feature Result
-----
False     No                InvalidArgs {}
```

Figure 5: Install Policy and Access Services (NPAS)

Here, we used command add-windowsfeature npas in order to install network policy and access services on windows server. NPAS is a set of server roles and features in windows server that provide network access and security services.

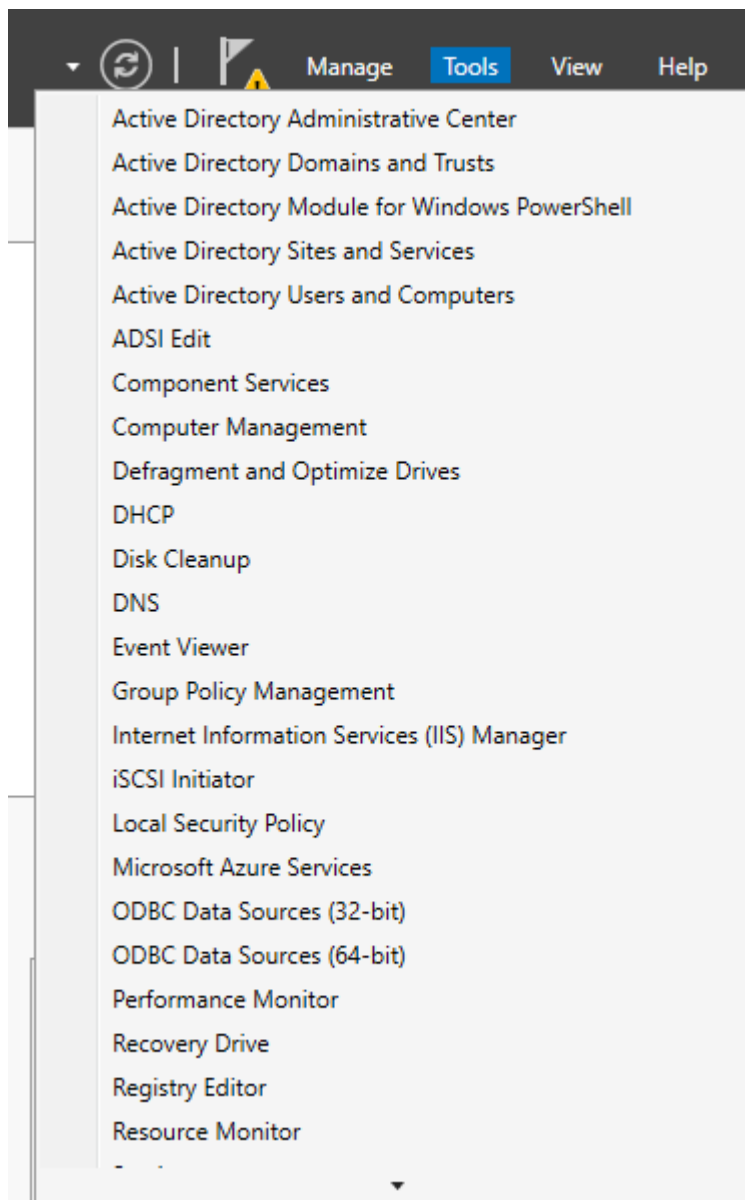


Figure 6: Open DHCP settings

At the homepage of windows server, click at tools and find DHCP and click it, to open it settings.

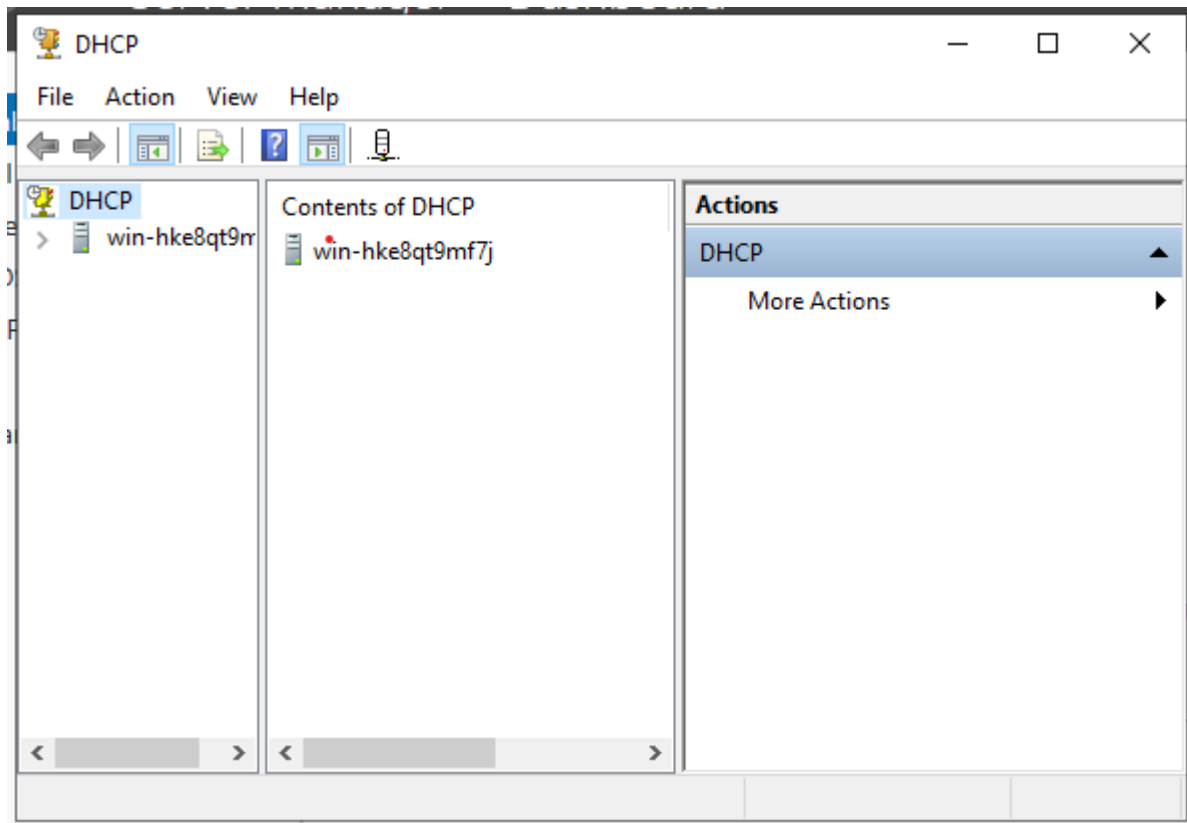


Figure 7: Main Page of DHCP settings

Here in the homepage of DHCP setting, we can see the directory of the DHCP in the contents of DHCP.

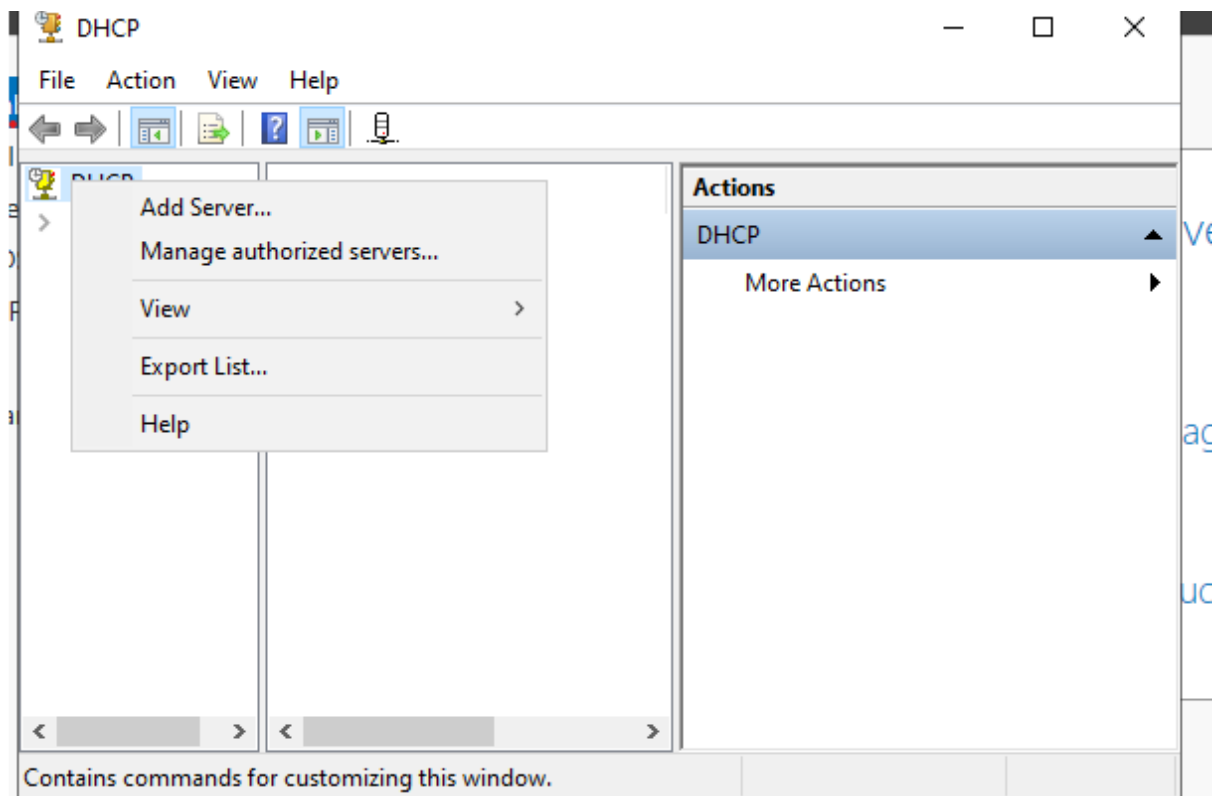


Figure 8: Manage authorized servers

Here, since we want to manage the authorized servers, then we need to right-click at DHCP, and popup all the available options, then we choose “Manage authorized servers..”

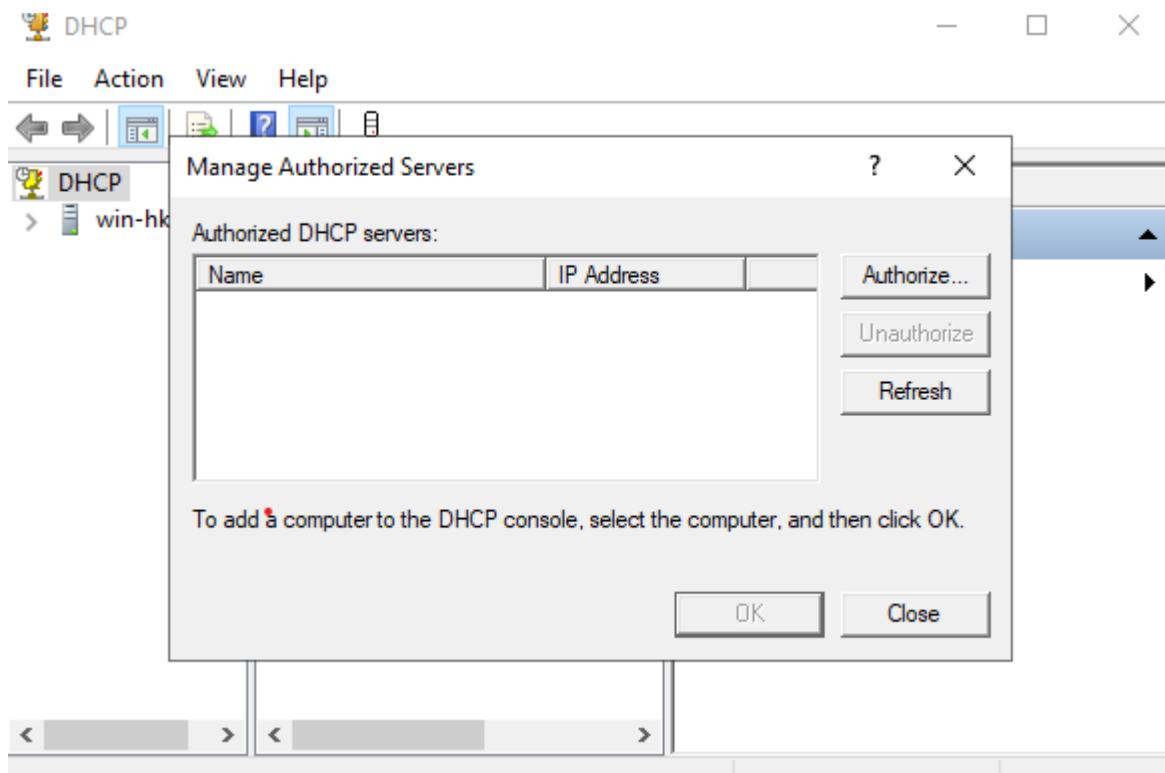


Figure 9: List of authorized DHCP servers

Here, it will list the server that is authorized that we can manage, so in order to add the DHCP server, we need to click at the authorize button.

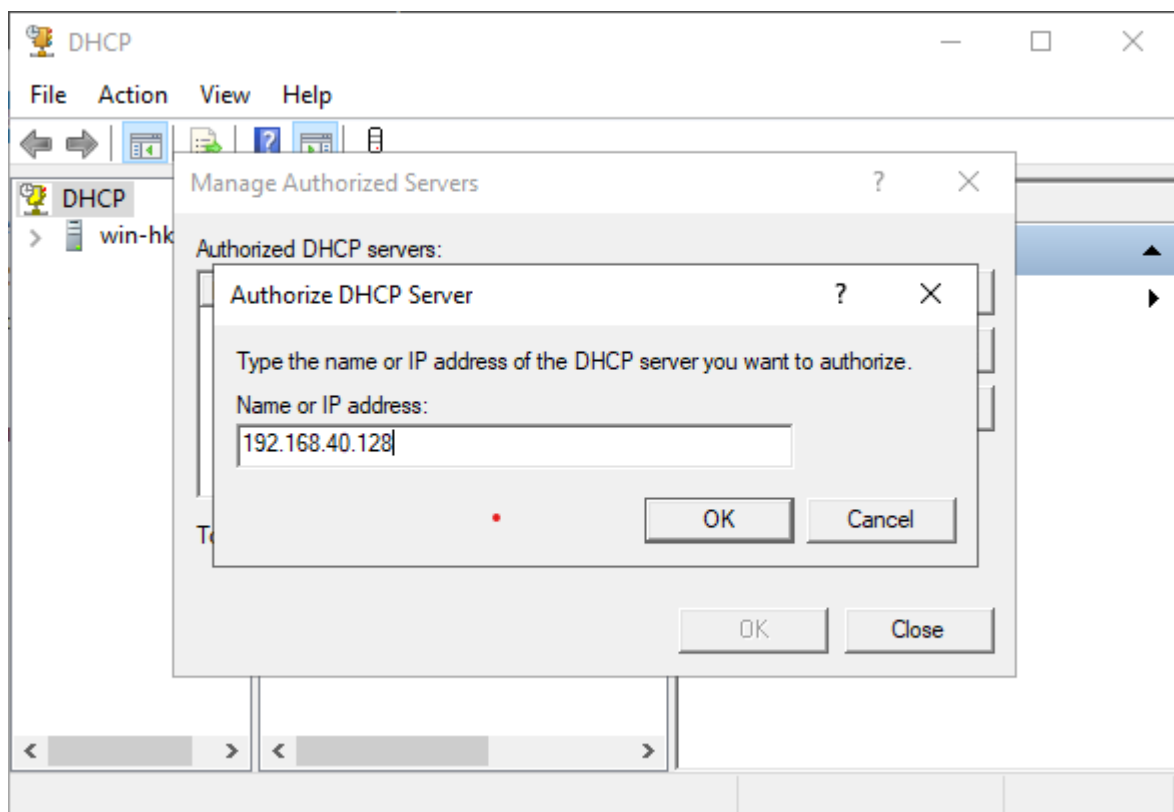


Figure 10: Authorize DHCP Server

Here, we type the name or ip address of the DHCP server that we want to authorize, here we type 192.168.40.128 because we configured this ip address in the network interface.

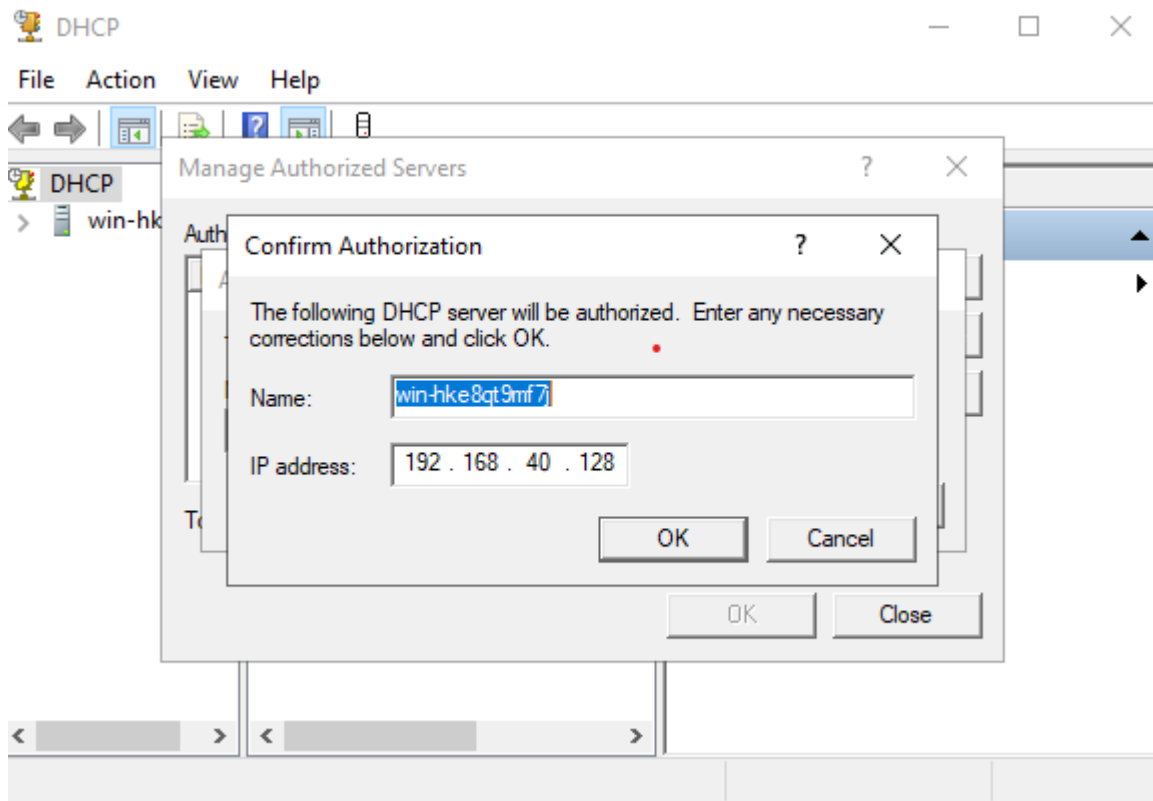


Figure 11: Confirm the authorization

Here, after we write the ip address for authorization, then we need to confirm for authorization, however the name of the DHCP server will display automatically when we want to confirm authorization because it detects the existing DHCP server for that ip address and then click “OK” to confirm the authorization.