U - II

Performing Basic Server Configuration : Configure local server properties, Configure server roles, Set up IP addressing service roles

Administering the Server : Update the server, Server administration access and control methods, Create service level agreements, Monitor server performance

Implementing Storage Solutions : Perform capacity planning, Deploy primary storage devices, Storage technologies, Configure RAID

- A directory is a hierarchical structure that stores information about objects on the network. A directory service, such as Active Directory Domain Services (AD DS), provides the methods for storing directory data and making this data available to network users and administrators.

- ***For example,*** *AD DS stores information about user accounts, such as names, passwords, phone numbers, and so on, and enables other authorized users on the same network to access this information.*

- Active Directory stores information about objects on the network and makes this information easy for administrators and users to find and use. Active Directory uses a structured data store as the basis for a logical, hierarchical organization of directory information.

NIC Teaming

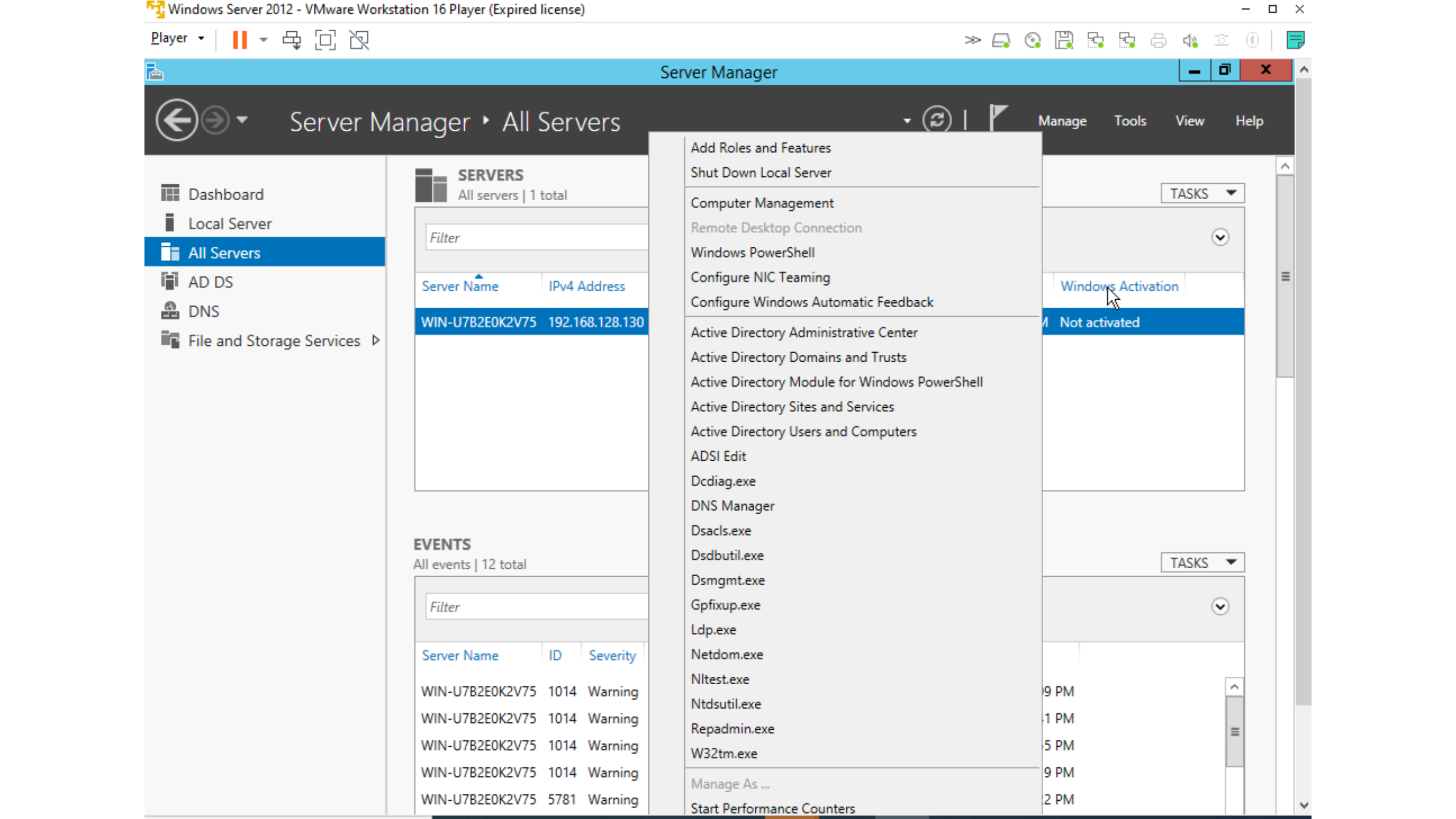
- NIC Teaming, also known as load balancing and failover (LBFO).

- By 3 ways:
  - Static
  - Switch independent
  - Dynamic (LACP - Link Aggregation Control Protocol)

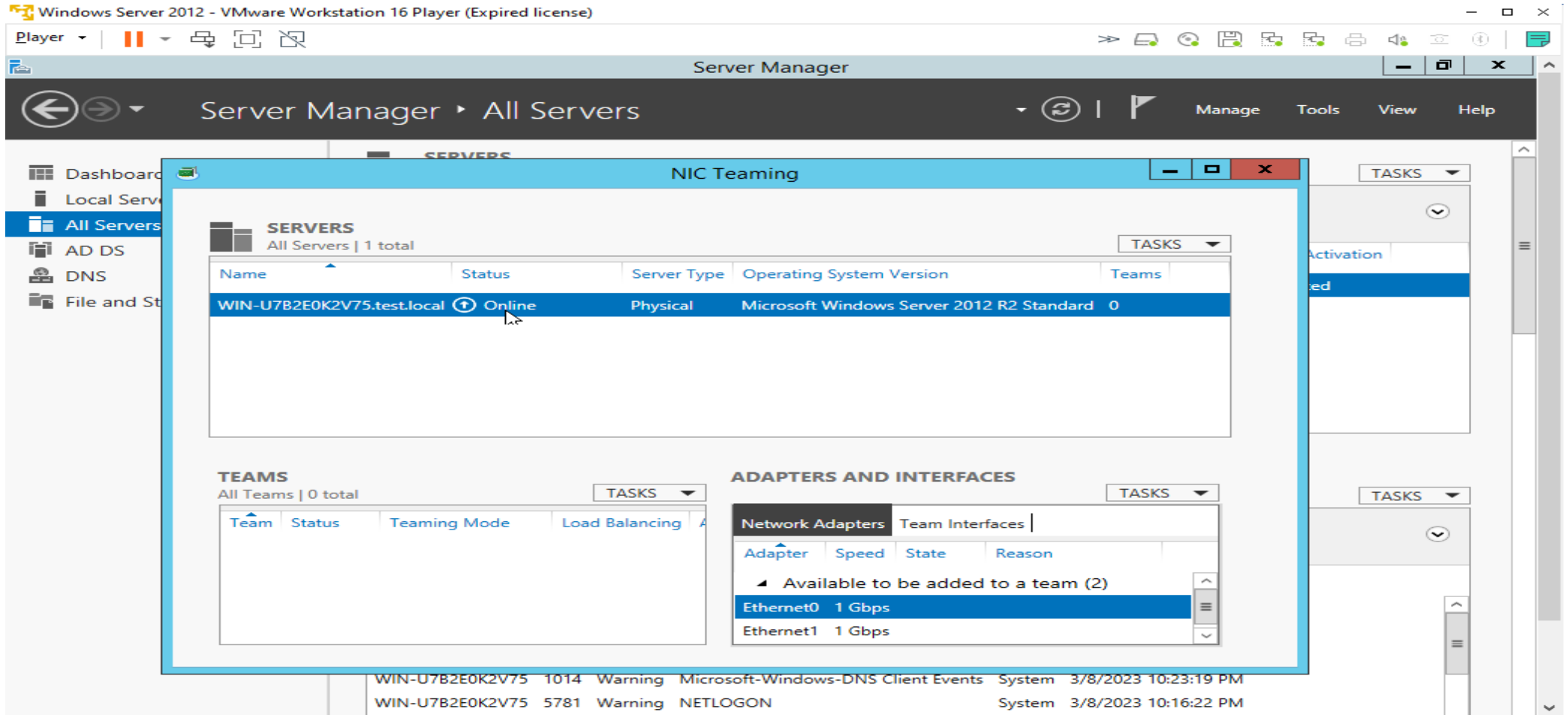
NIC Teaming Configuration

- By server manager:

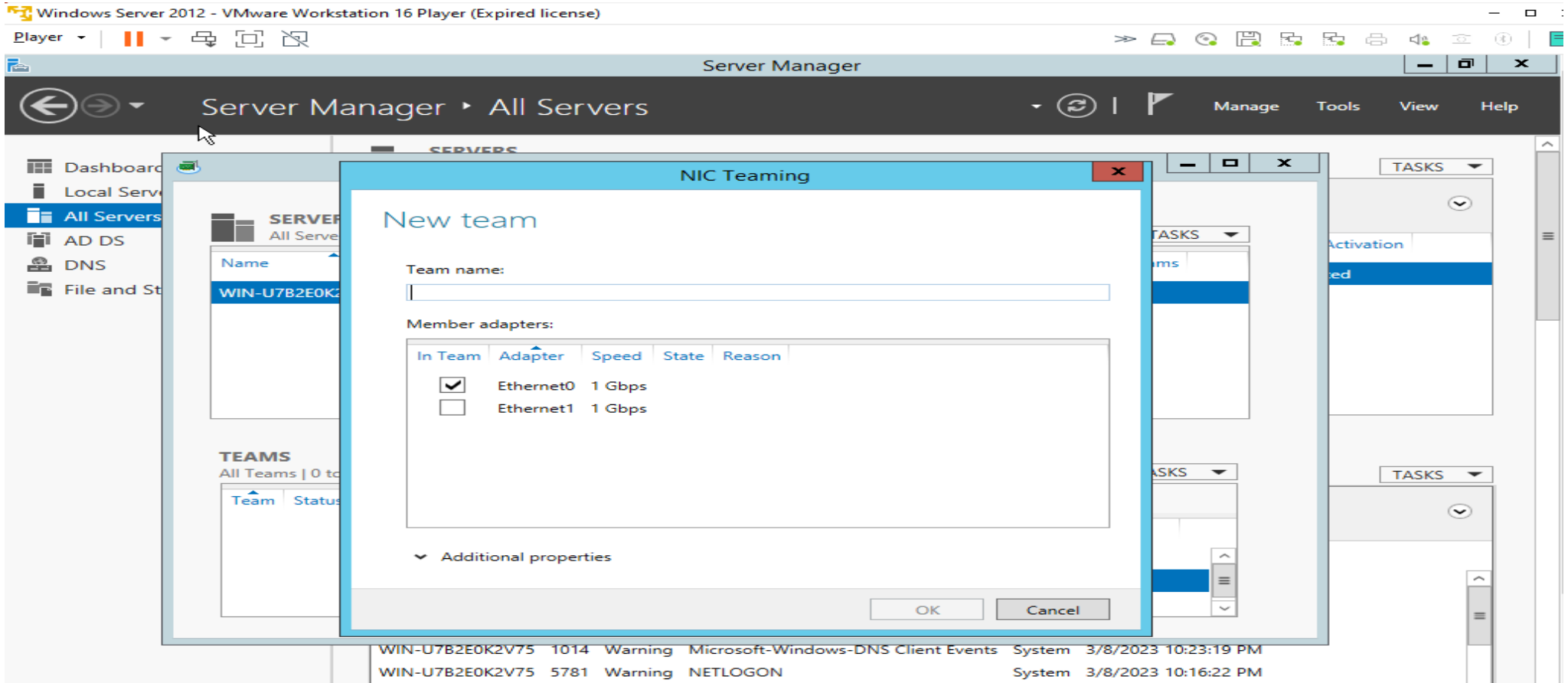
- Check the two network adapters on machine by command ncpa.cpl in command window or in powershell (ncpa.cpl - The quickest way to go directly to the network adapters, Ncpa.cpl, also known as a **Network Connections Control-Panel Stub file**, was created by Microsoft for the development of Microsoft® Windows® Operating System. CPL files fall under under the Win32 DLL (Dynamic link library) file type category.)
- Server manager -> all servers -> right click on server


Windows Server 2012 - VMware Workstation 16 Player (Expired license)
Player
Server Manager
Server Manager ▸ All Servers
Manage
Tools
View
Help
Dashboard
Local Server
All Servers
AD DS
DNS
File and Storage Services
SERVERS
All servers | 1 total
Filter
Server Name
IPv4 Address
Windows Activation
WIN-U7B2E0K2V75
192.168.128.130
Not activated
TASKS
EVENTS
All events | 12 total
Filter
Server Name
ID
Severity
WIN-U7B2E0K2V75 1014 Warning
WIN-U7B2E0K2V75 1014 Warning
WIN-U7B2E0K2V75 1014 Warning
WIN-U7B2E0K2V75 1014 Warning
WIN-U7B2E0K2V75 5781 Warning
Add Roles and Features
Shut Down Local Server
Computer Management
Remote Desktop Connection
Windows PowerShell
Configure NIC Teaming
Configure Windows Automatic Feedback
Active Directory Administrative Center
Active Directory Domains and Trusts
Active Directory Module for Windows PowerShell
Active Directory Sites and Services
Active Directory Users and Computers
ADSI Edit
Dcdiag.exe
DNS Manager
Dsacls.exe
Dsdbutil.exe
Dsmgmt.exe
Gpfixup.exe
Ldp.exe
Netdom.exe
Nltest.exe
Ntdsutil.exe
Repadmin.exe
W32tm.exe
Manage As ...
Start Performance Counters

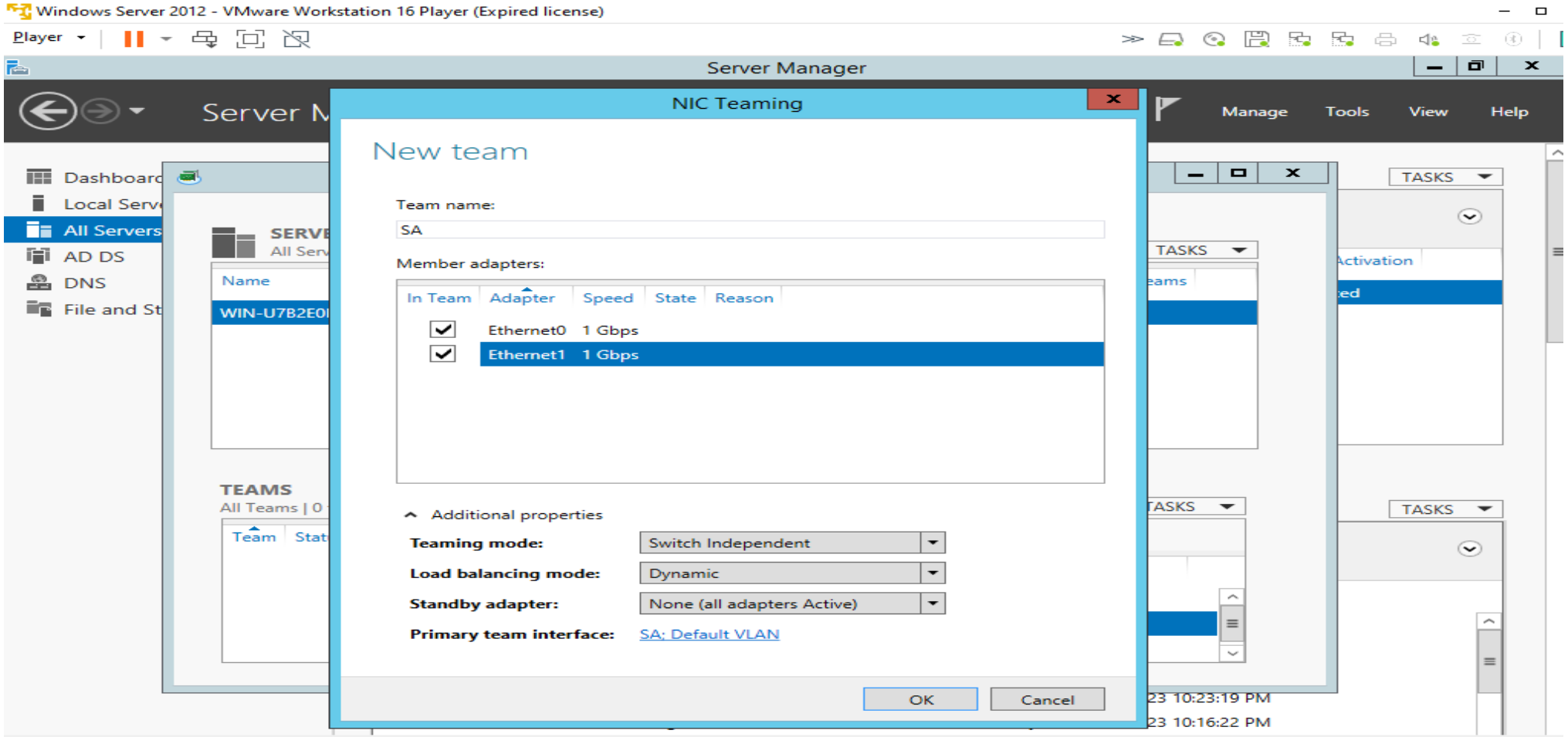
- Now click on configure nic teaming



- Now right click on first network adapter and click on Add to New Team



- Now give Team Name and add another network adapter also



- **Address Hash:** In this mode, a hash is created based on the address components of the packet. This hash is assigned to one of the available adapters, thus creating a reasonable balance across available adapters.

- **Hyper-V Port:** In this mode, the NIC teams that are configured on Hyper-V hosts give independent MAC addresses to Virtual Machines (VMs).

- **Dynamic:** In this mode, the outbound loads are distributed based on the TCP port and IP address. This mode rebalances loads in real-time to ensure that a given outbound flow moves back and forth between team members.