



# FEU INSTITUTE OF TECHNOLOGY

**COLLEGE OF COMPUTER STUDENTS  
INFORMATION TECHNOLOGY DEPARTMENT**

**IT0021**

**(System Administration and Maintenance)**

## LAB EXERCISE

3

### **Installing Active Directory Services on Windows Server 2022/2025**

<b>Student Name / Group Name:</b>	FINEZ, JORELL ANDREI	
<b>Members (if Group):</b>	<b>Name</b>	<b>Role</b>
<b>Section:</b>	TW34	
<b>Professor:</b>	Mr. Abricam Tinga	

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## **I. PROGRAM OUTCOME/S (PO) ADDRESSED BY THE LABORATORY EXERCISE**

- b. Analyze a complex problem and identify and define the computing requirements appropriate to its solution.

## **II. COURSE LEARNING OUTCOME/S (CLO) ADDRESSED BY LABORATORY EXERCISE**

- 1. Justify how resources will be allocated for the various administrative domains*

## **III. INTENDED LEARNING OUTCOME/S (ILO) ADDRESSED BY THE LABORATORY EXERCISE**

- Identify the different Windows Server Operating System.
- Differentiate the different Windows Server Operating System

## **IV. INTENDED LEARNING OUTCOME/S (ILO) ADDRESSED BY THE LABORATORY EXERCISE**

- a) Understand how to set-up domain controller using dcpromo command or Server Manager;
- b) Perform adding server role as Domain Controller;
- c) Set-up Domain Controller as DNS Server;
- d) Determine how the database, log files and SYSVOL are created.

## **V. BACKGROUND INFORMATION:**

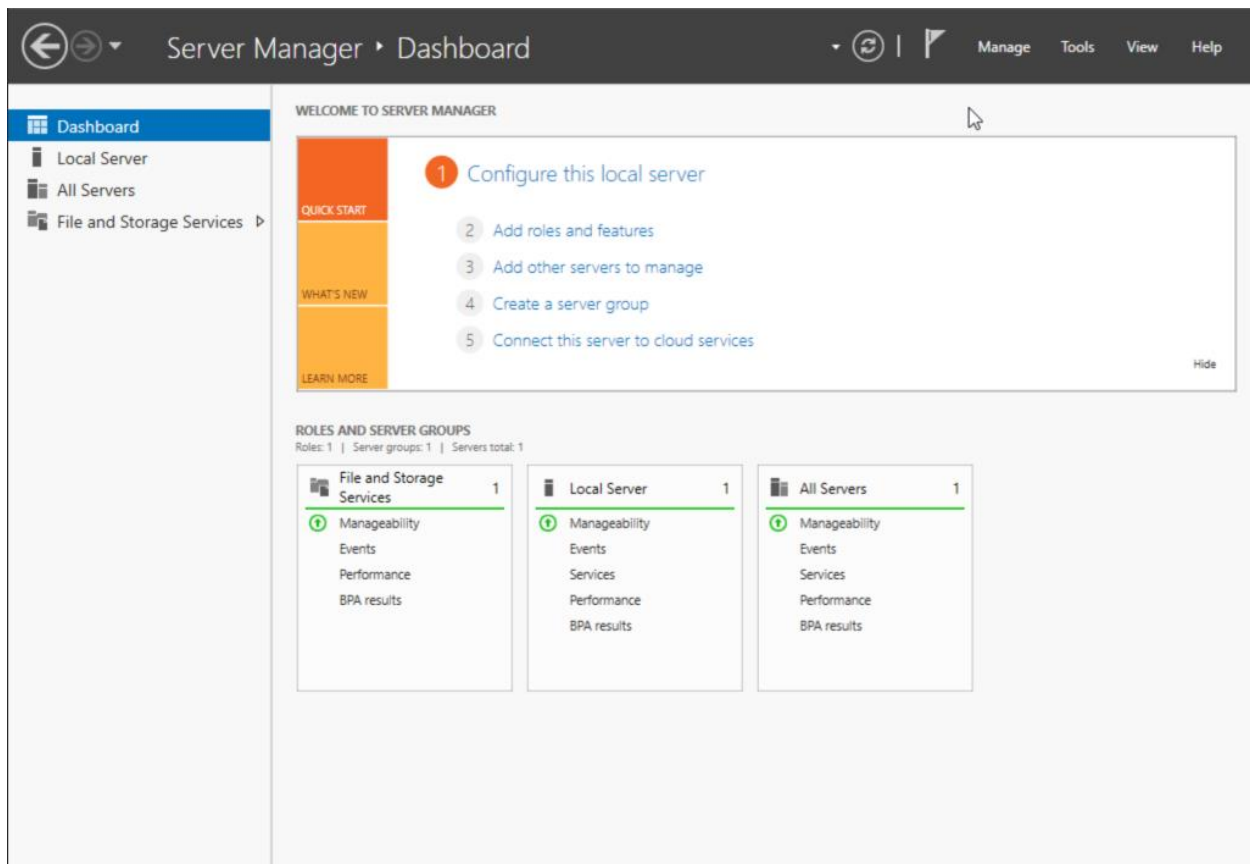
With the help of Active Directory Services, often referred to as AD, administrators can control user accounts, workstations, and security settings throughout a company's network. It is an essential part of Windows Server, and installing Active Directory has gotten much simpler since Windows Server 2022 was released.

In today's article, we'll walk you through the installation of Active Directory on your Windows Server 2022.

## **VI. LABORATORY ACTIVITY:**

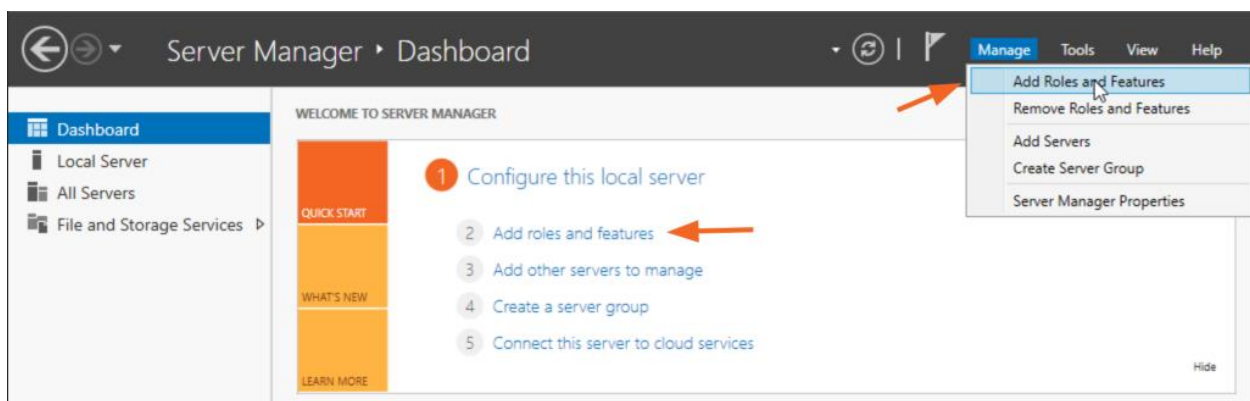
*Step 1: Login to Server Manager*

To start the installation process of the Active Directory Domain Services, you need to access server manager. It typically launches automatically when you boot up your server. If not, type "Server Manager" into the Windows search box and double click on it to launch.

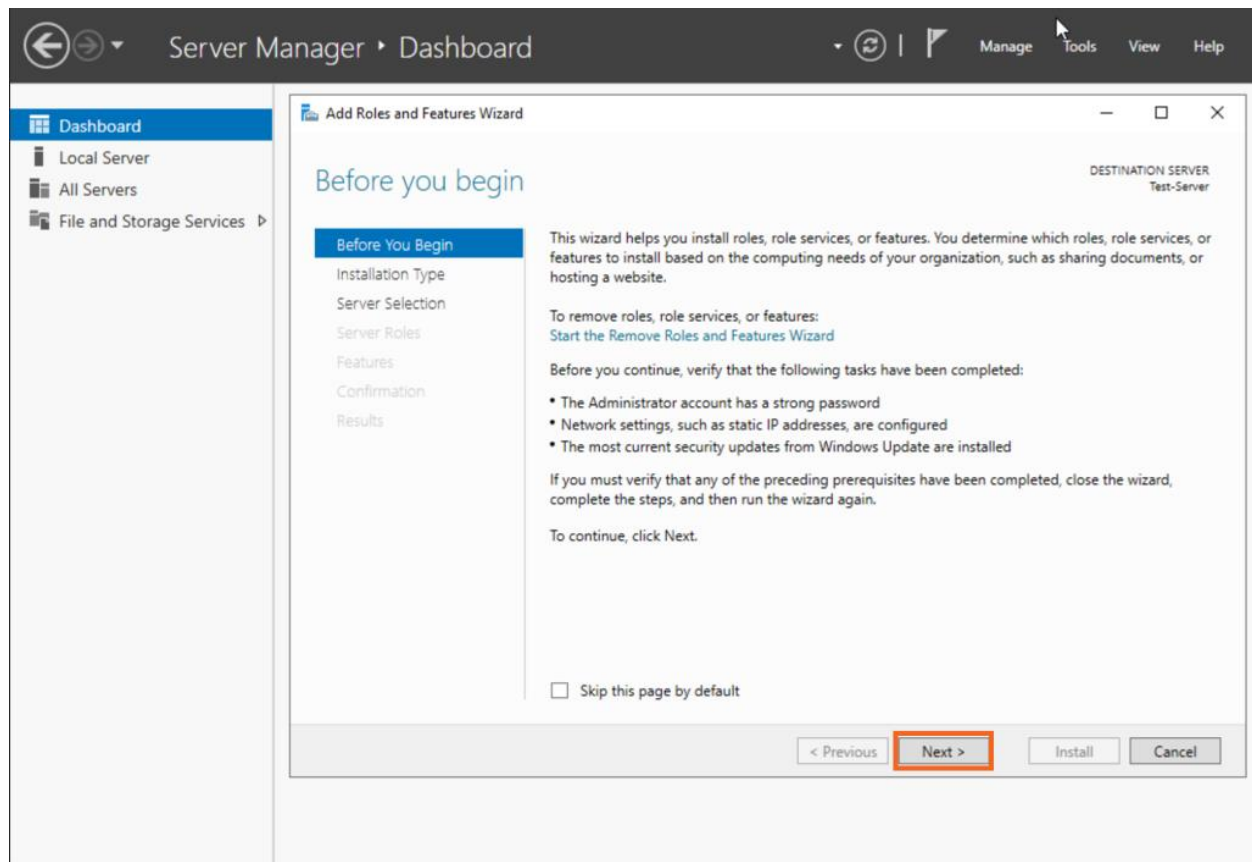


### *Step 2: Add Roles and Features*

There are two ways to start “Add Roles and Features.” You can click it from the home page, or you can right-click “Manage” to select the function from the pop-out menu.

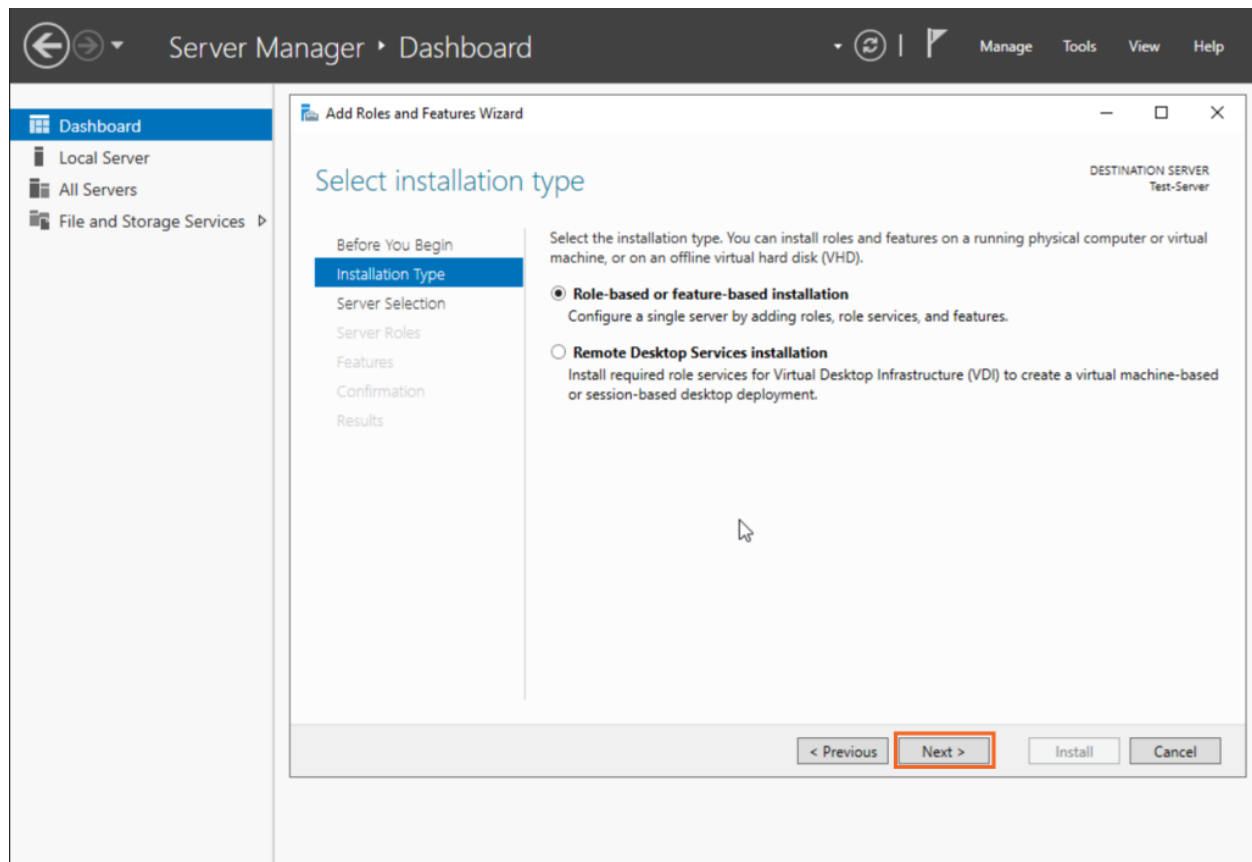


The “Add Roles and Features Wizard” page will be displayed during the process, and the Active Directory installation will then begin. Please select “Next.”



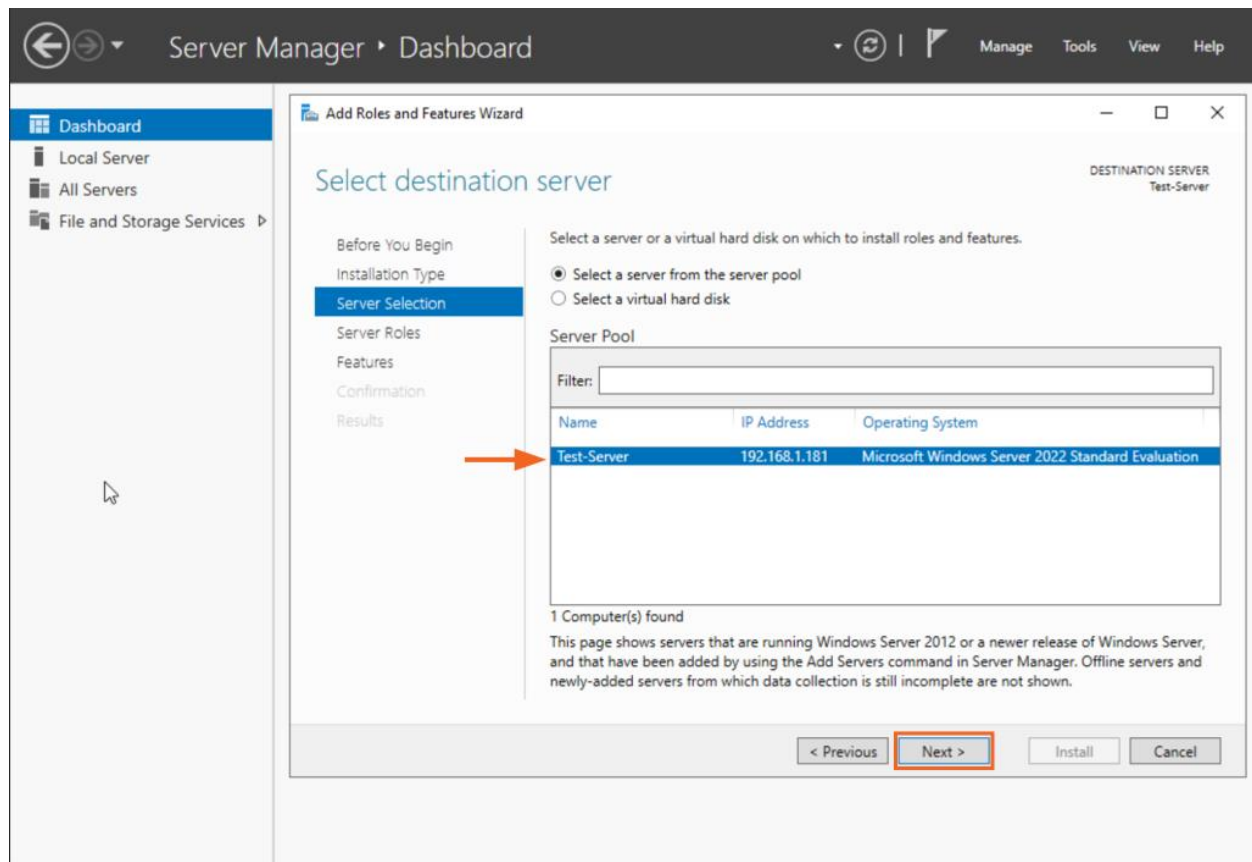
### *Step 3: Select Installation Type*

On the “**Installation Type**” screen, select “**Role-based or feature-based installation**” and click “Next.”



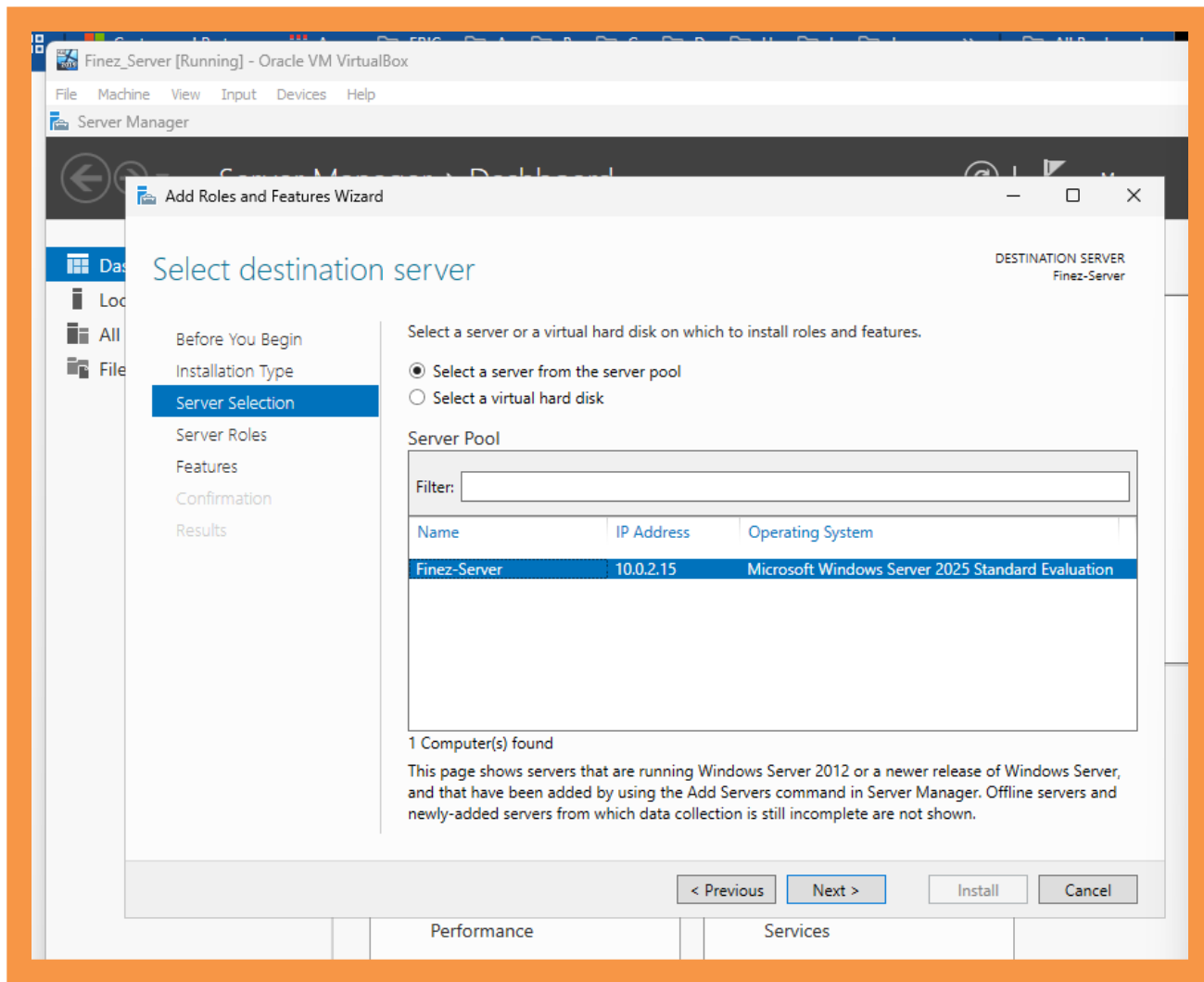
#### *Step 4: Server Selection*

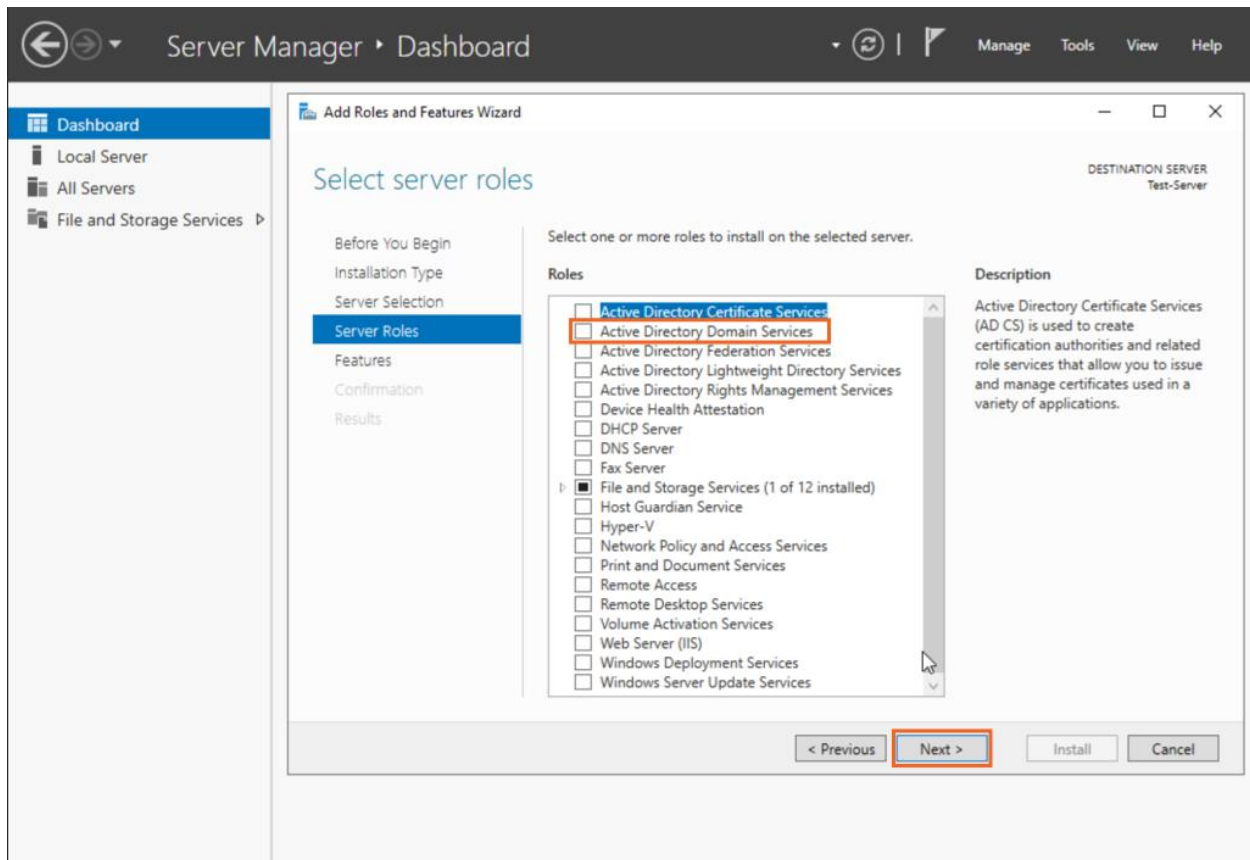
Click “Next” after choosing the server you wish to install Active Directory on from the “Server Selection” screen. We selected the local Windows Server 2022 Standard as the reference, in the image below:



#### *Step 5: Select Server Roles*

You will be directed to the “Server Roles” page by all of the preceding settings, where you will see a number of options with square checkboxes next to them. Click “Active Directory Domain Services” to continue.

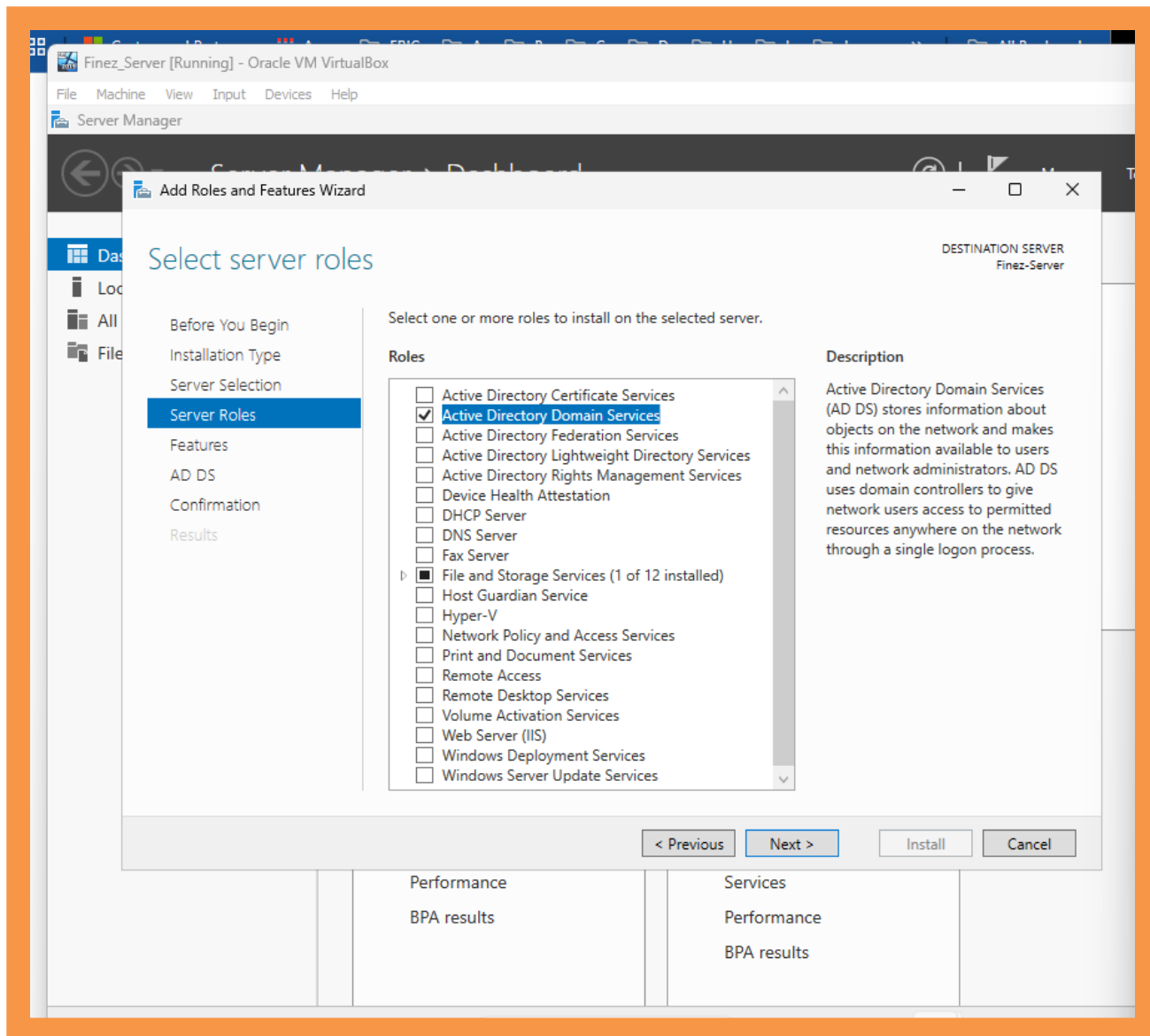


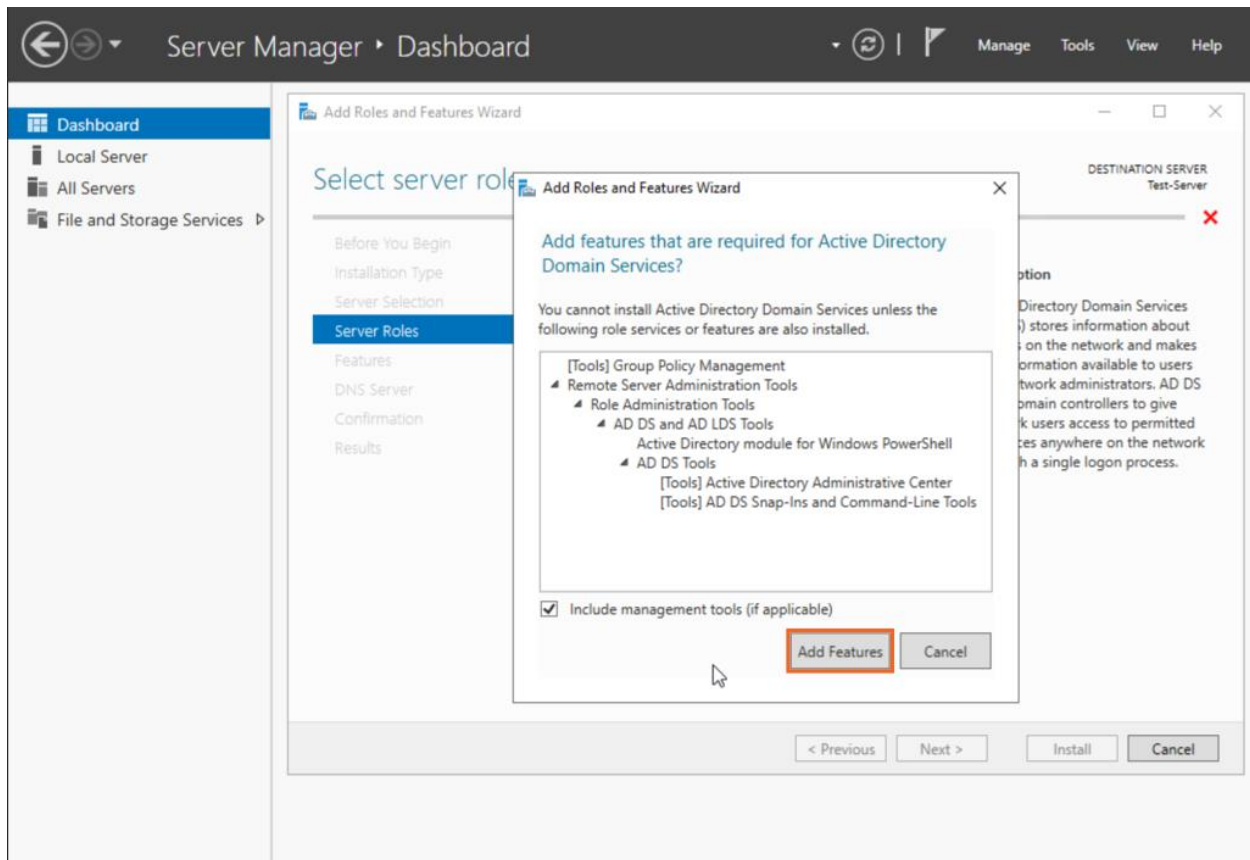


#### *Step 6: Add Selected Features*

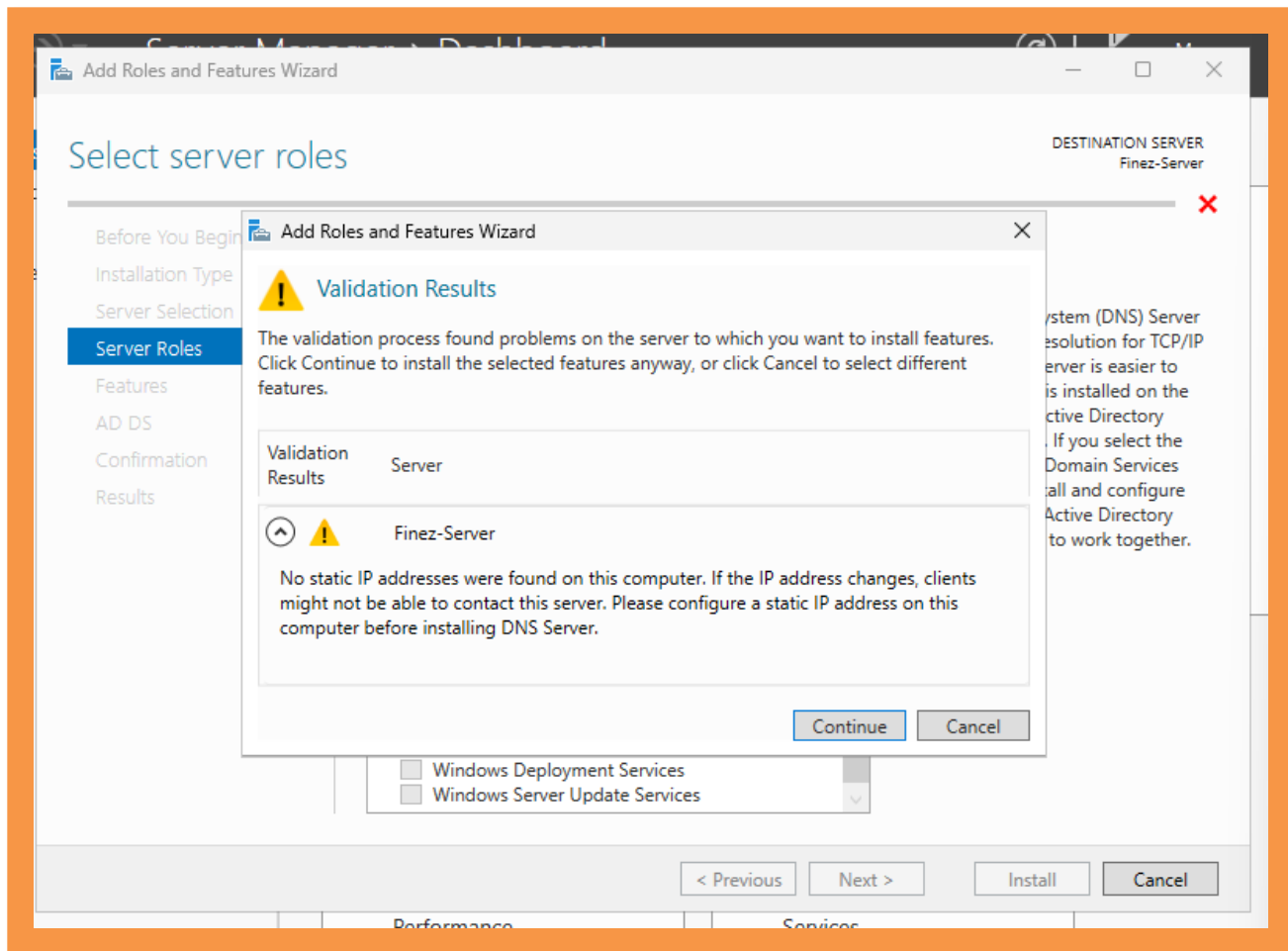
Adding the required features is a prerequisite for installing Active Directory Domain Services. Therefore, please pick features by clicking “Add Features” before continuing with the installation.

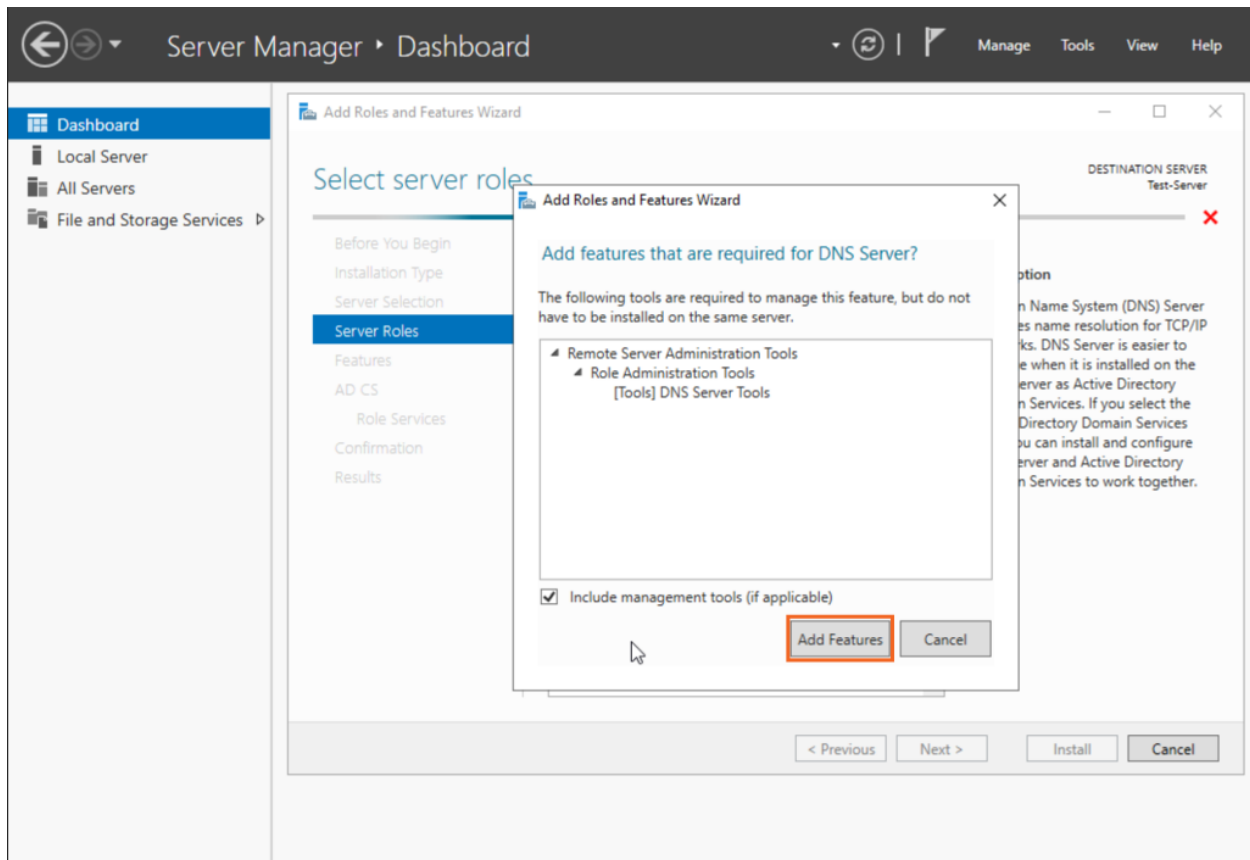




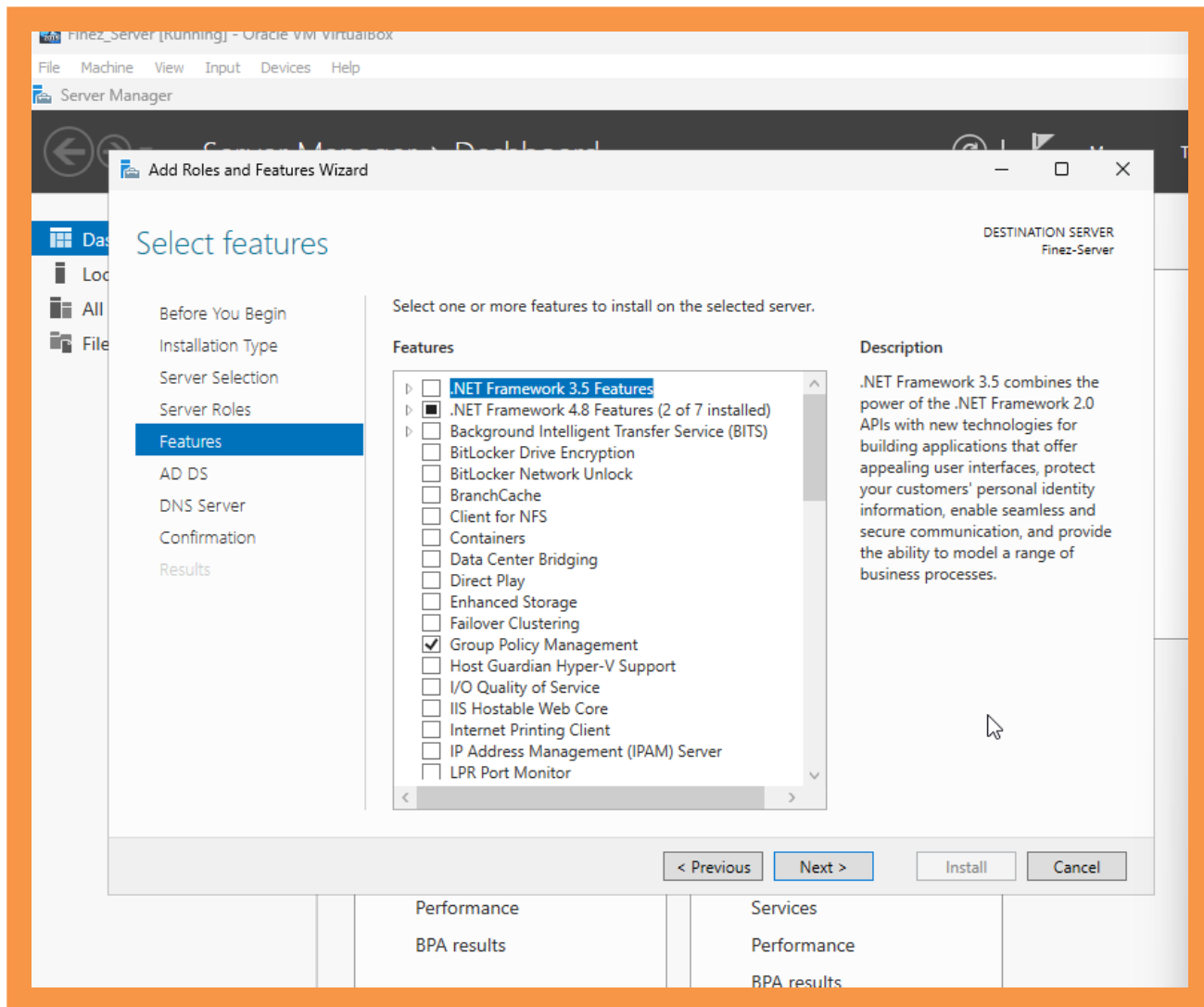


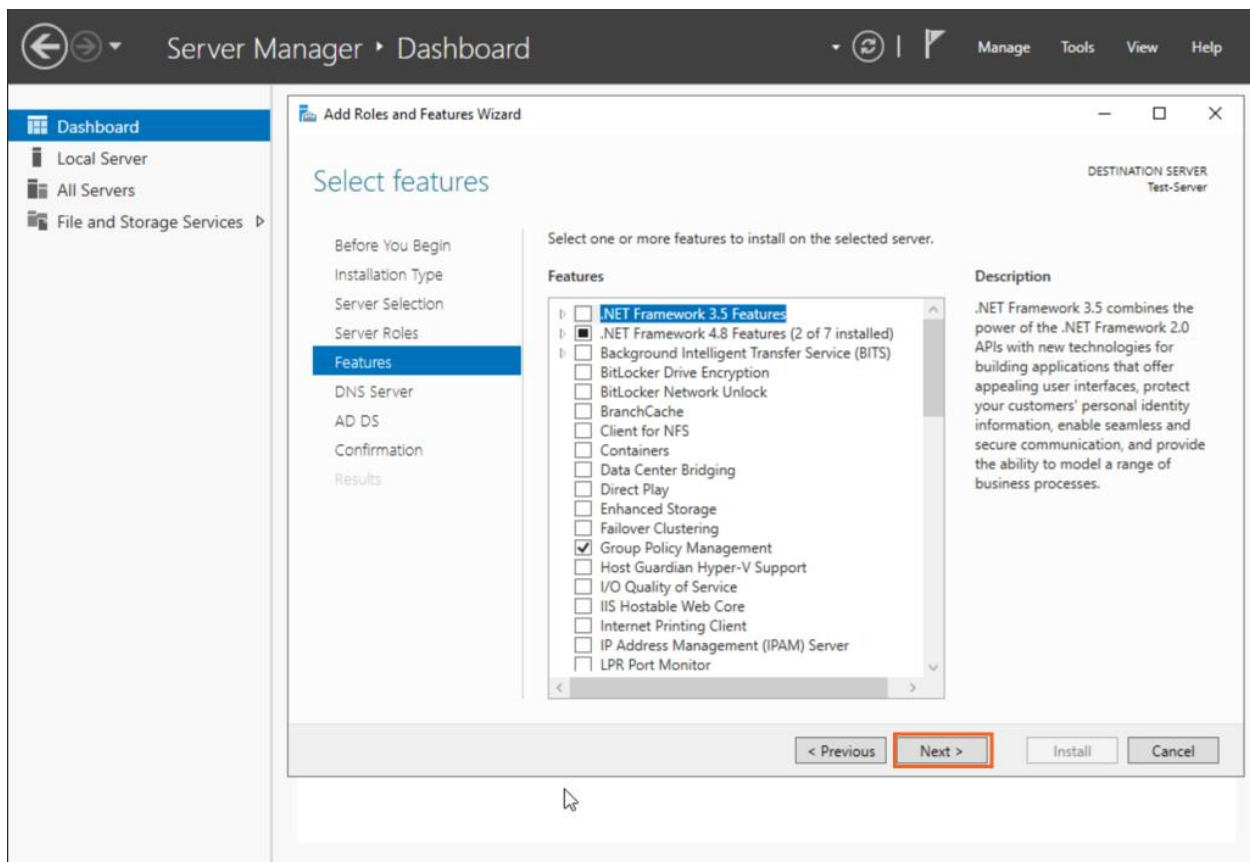
You can also include DNS services if you wish to use the server as the primary DNS for your organization's network. Add the features required for a DNS server.





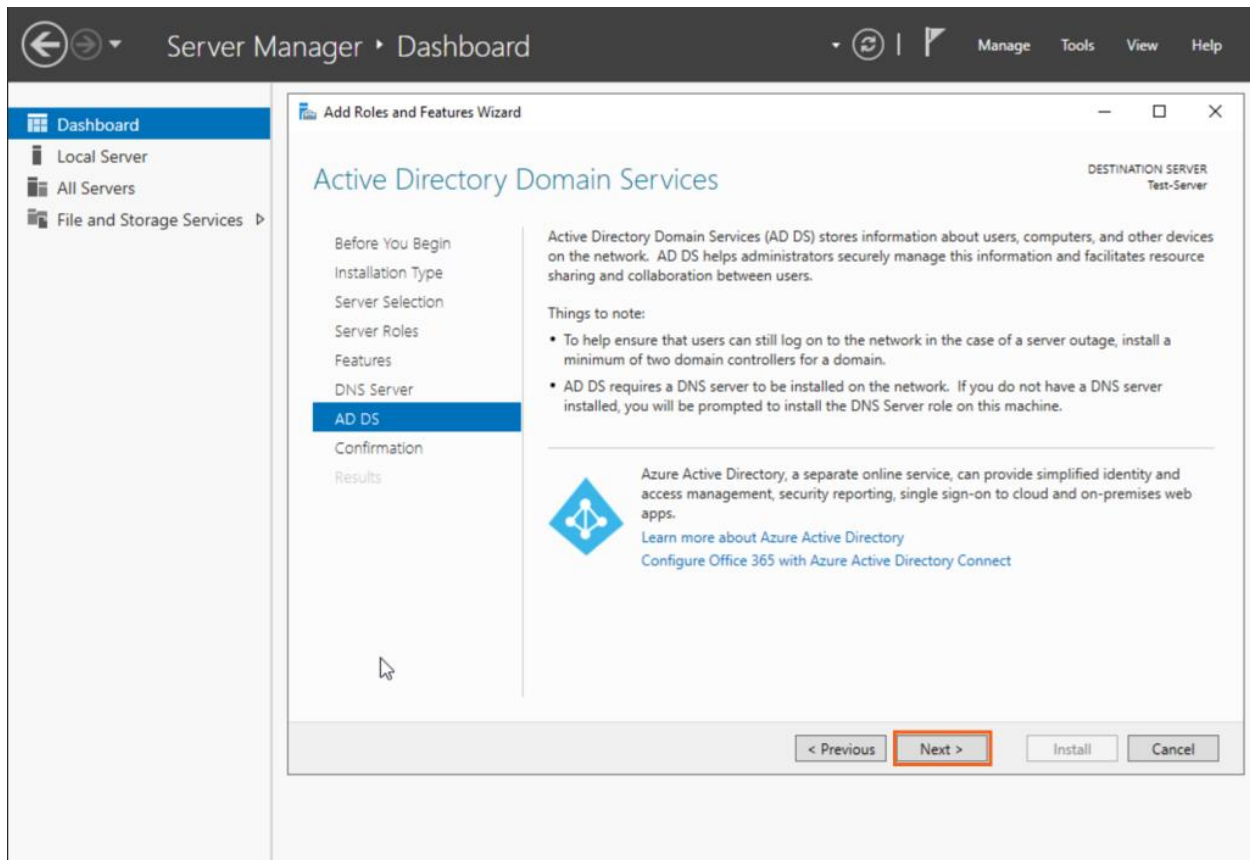
Click **Next** on the next page. Group Policy Management feature is selected automatically when you select Active Directory Domain Services.





### *Step 7: Active Directory Domain Service*

You will be taken to the “Activate Directory Domain Services” page following step 6. Click “Next” after reviewing the information in the “AD DS” screen.



### *Step 8. Confirm Installation Selections*

Before starting the installation process, double-check your installation choices. If necessary, you can choose to have the server restart automatically. Please click “Install” to proceed after checking.

## Add Roles and Features Wizard

# Active Directory Domain Services

DESTINATION SERVER  
Finiez-Server

- Before You Begin
- Installation Type
- Server Selection
- Server Roles
- Features
- AD DS**
- DNS Server
- Confirmation
- Results

Active Directory Domain Services (AD DS) stores information about users, computers, and other devices on the network. AD DS helps administrators securely manage this information and facilitates resource sharing and collaboration between users.

### Things to note:

- To help ensure that users can still log on to the network in the case of a server outage, install a minimum of two domain controllers for a domain.
- AD DS requires a DNS server to be installed on the network. If you do not have a DNS server installed, you will be prompted to install the DNS Server role on this machine.



Azure Active Directory, a separate online service, can provide simplified identity and access management, security reporting, single sign-on to cloud and on-premises web apps.

[Learn more about Azure Active Directory](#)

[Configure Office 365 with Azure Active Directory Connect](#)

< Previous

Next >

Install

Cancel

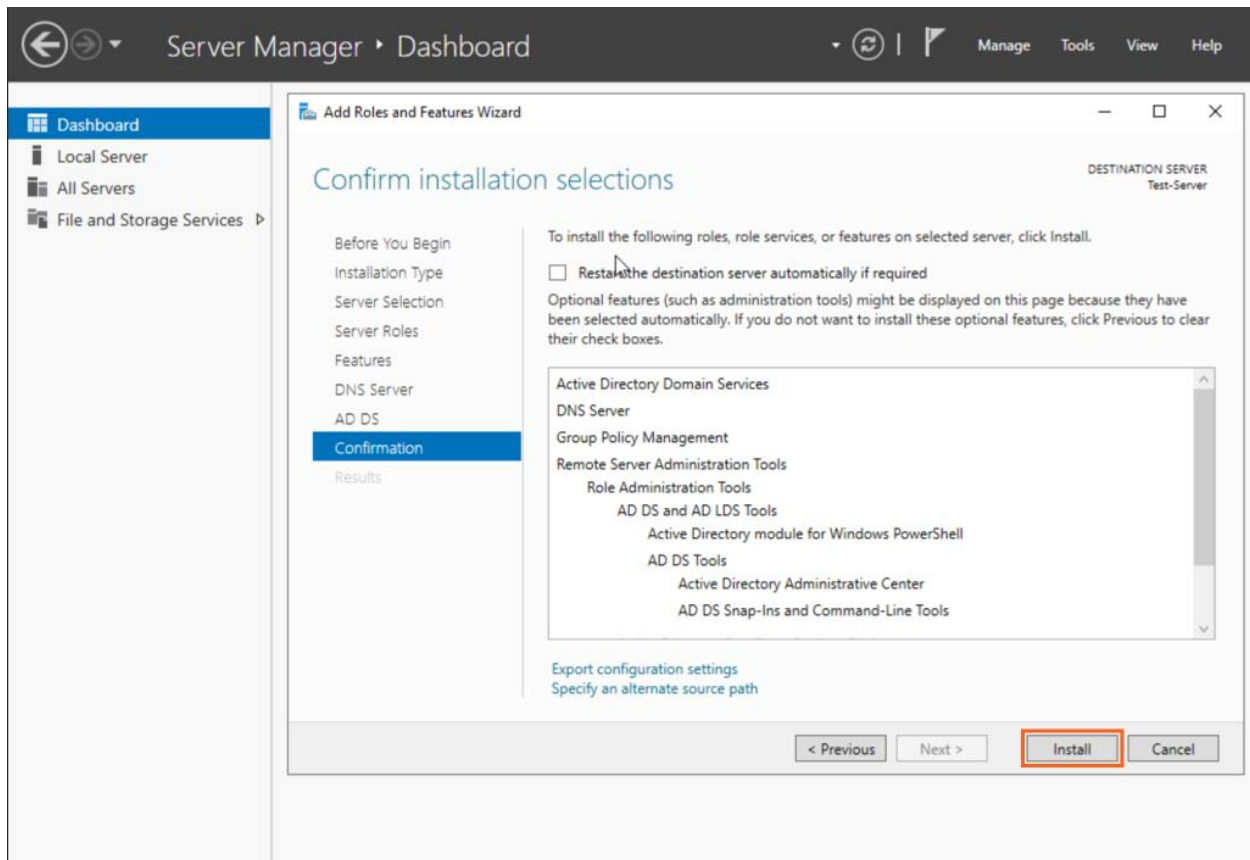
Performance

RPA results

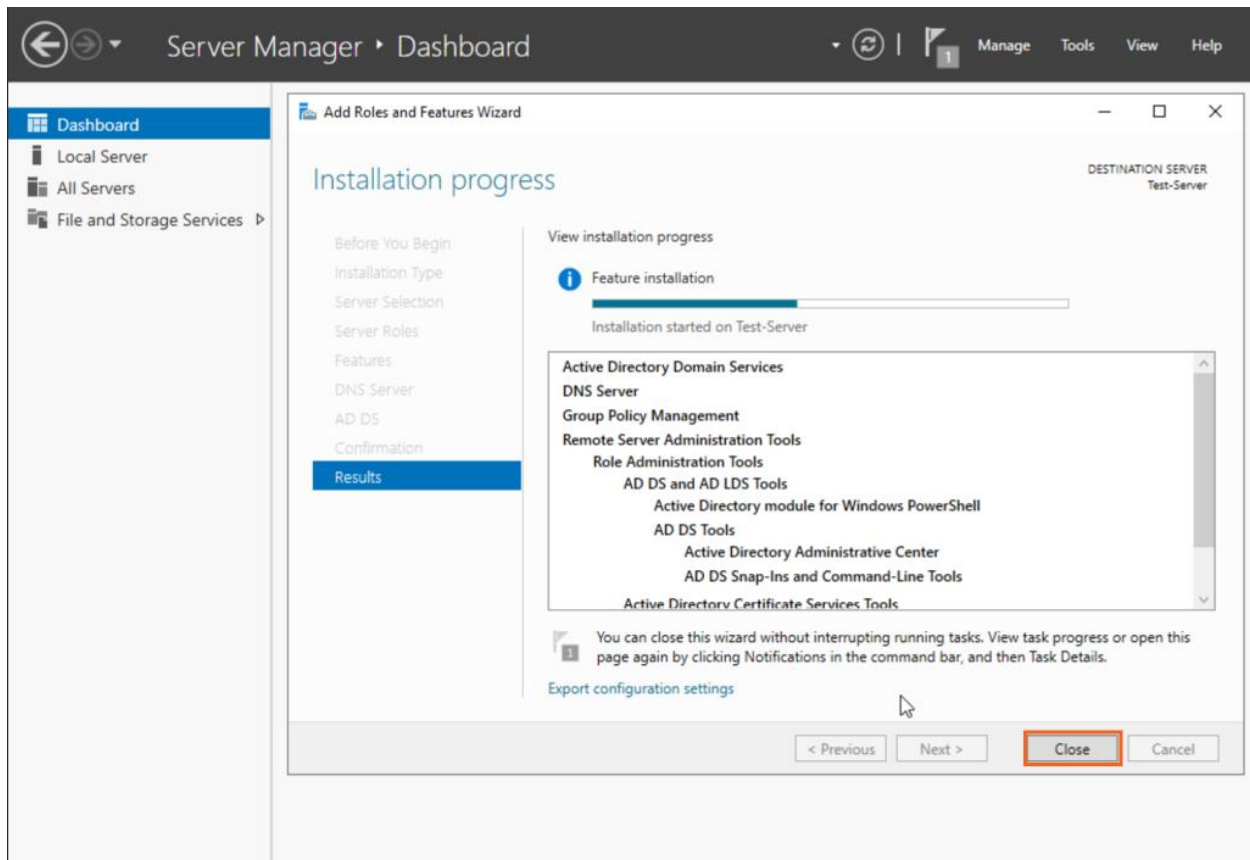
Services

Performance

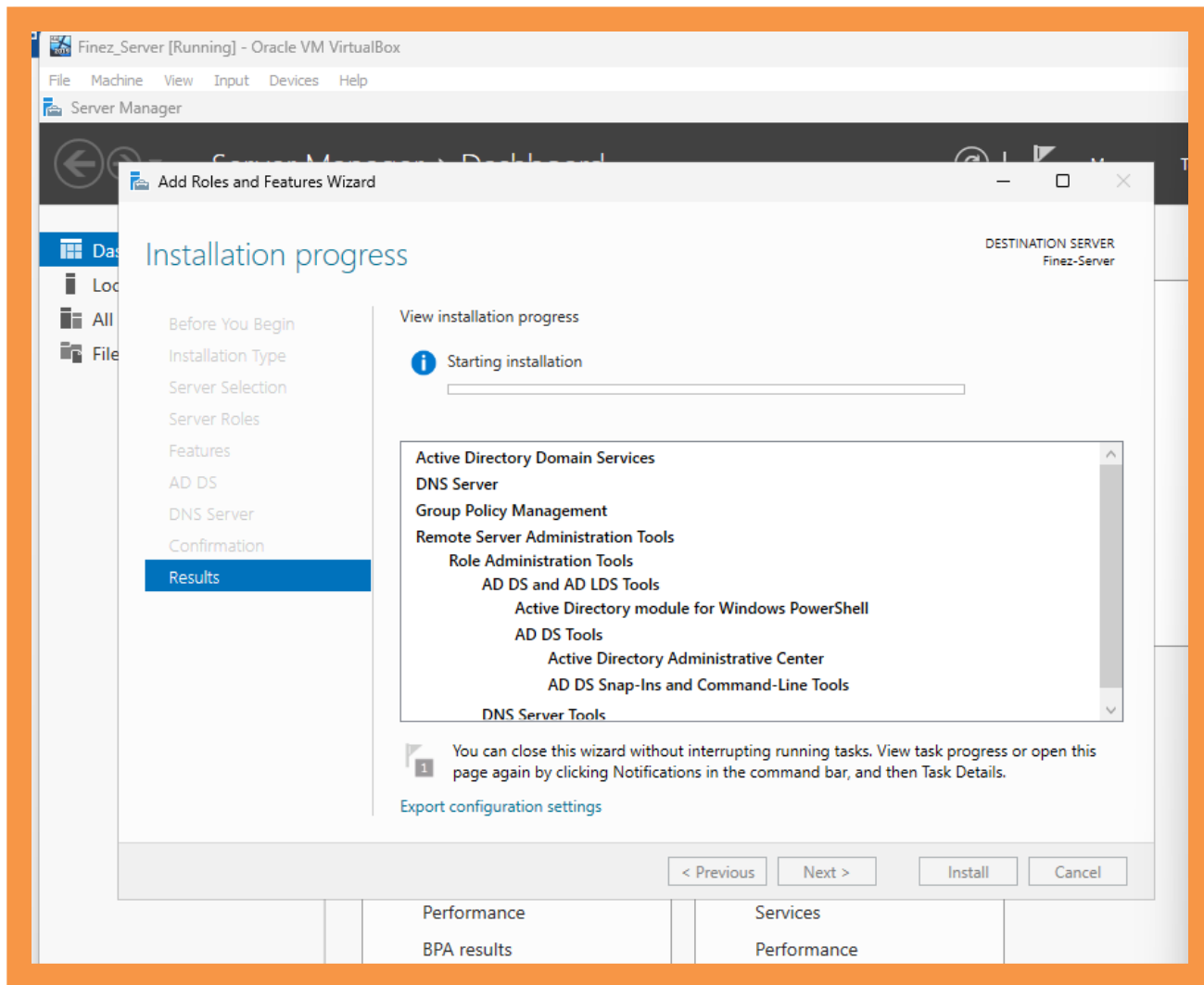


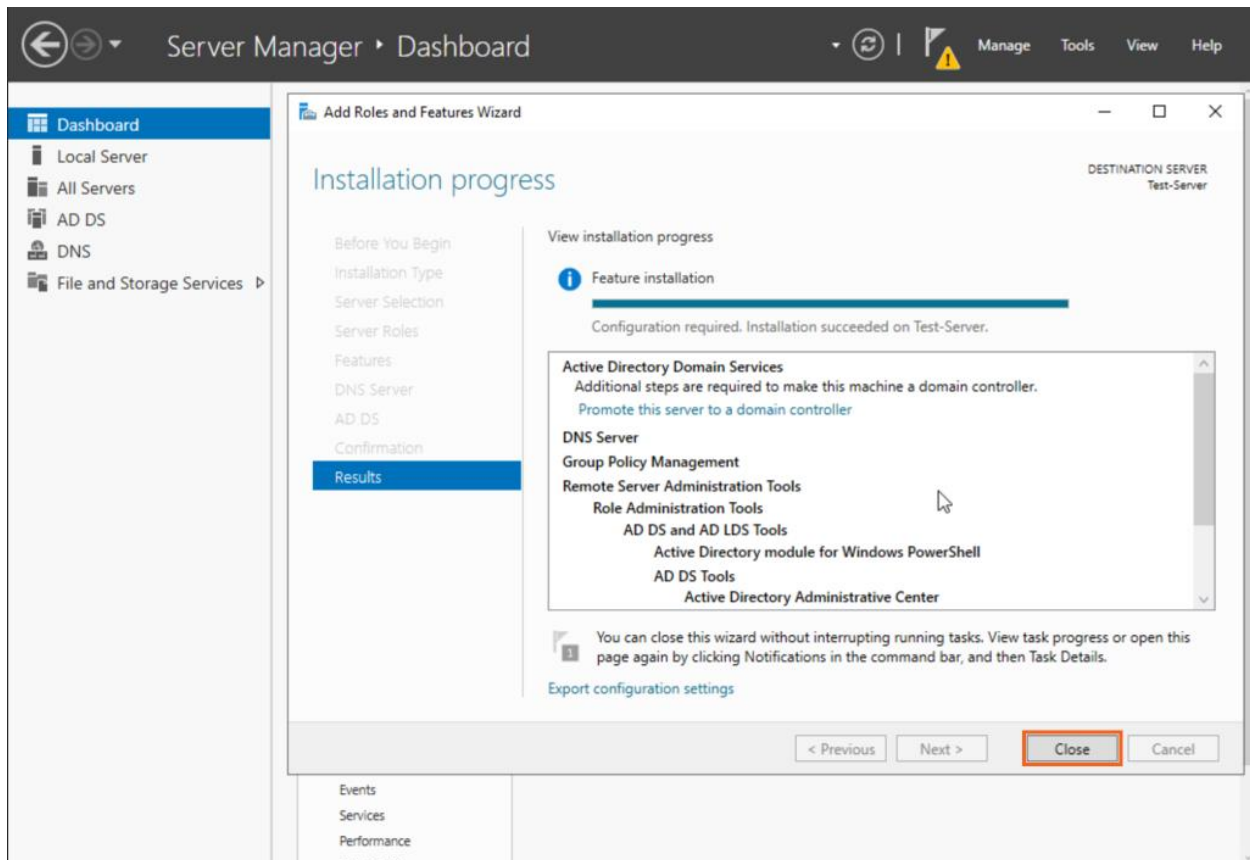


Once the previous settings are done, the installation will proceed.

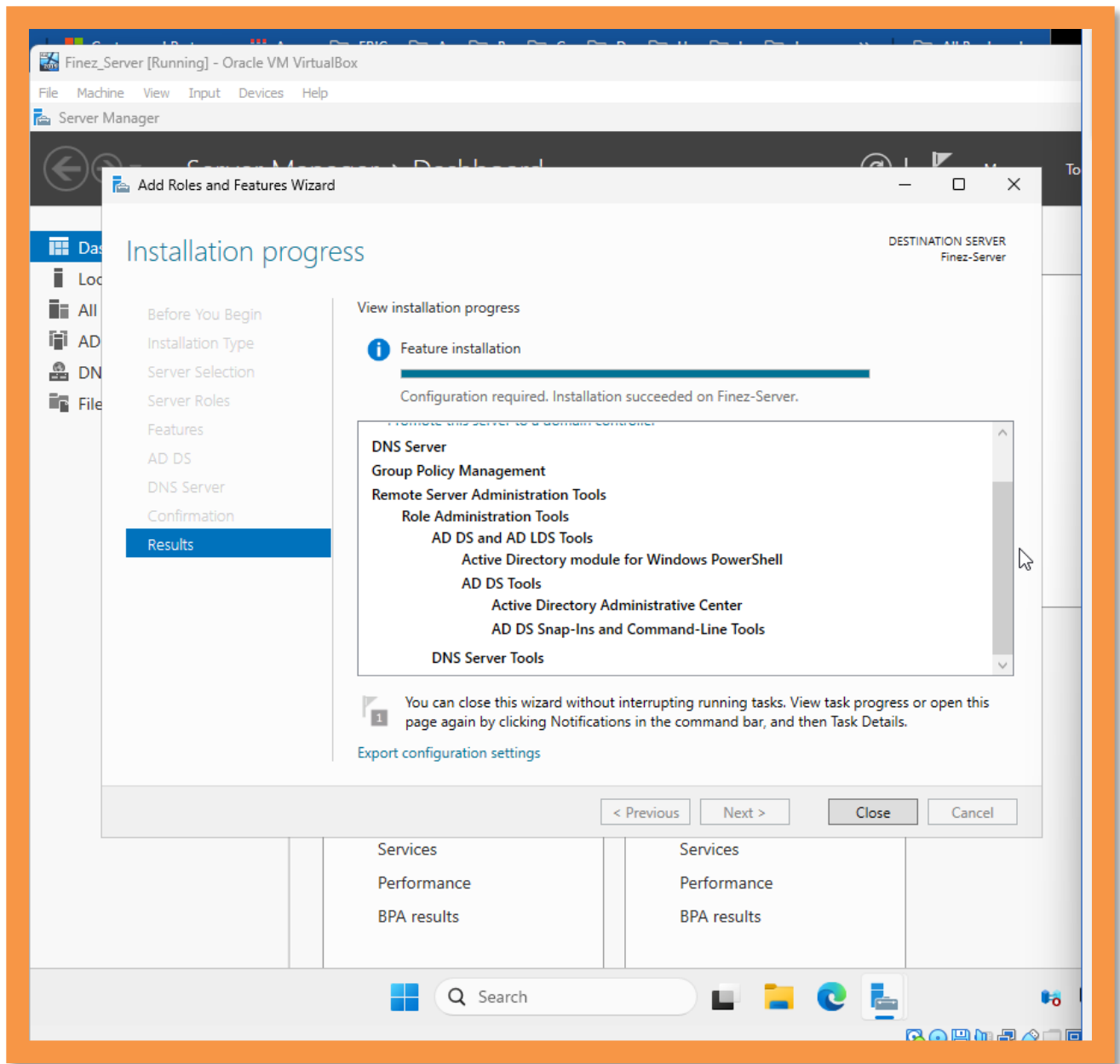


After it finishes, please click “Close”.

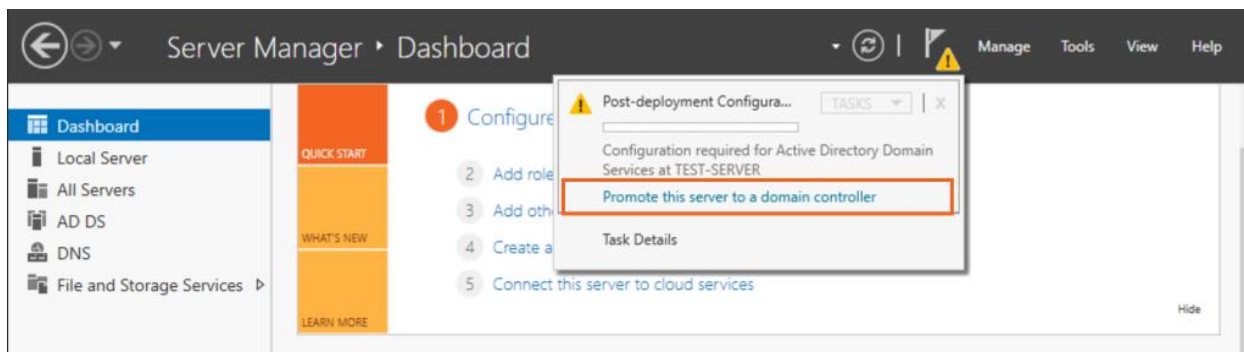




*Step 9. Configure Active Directory Domain Services*

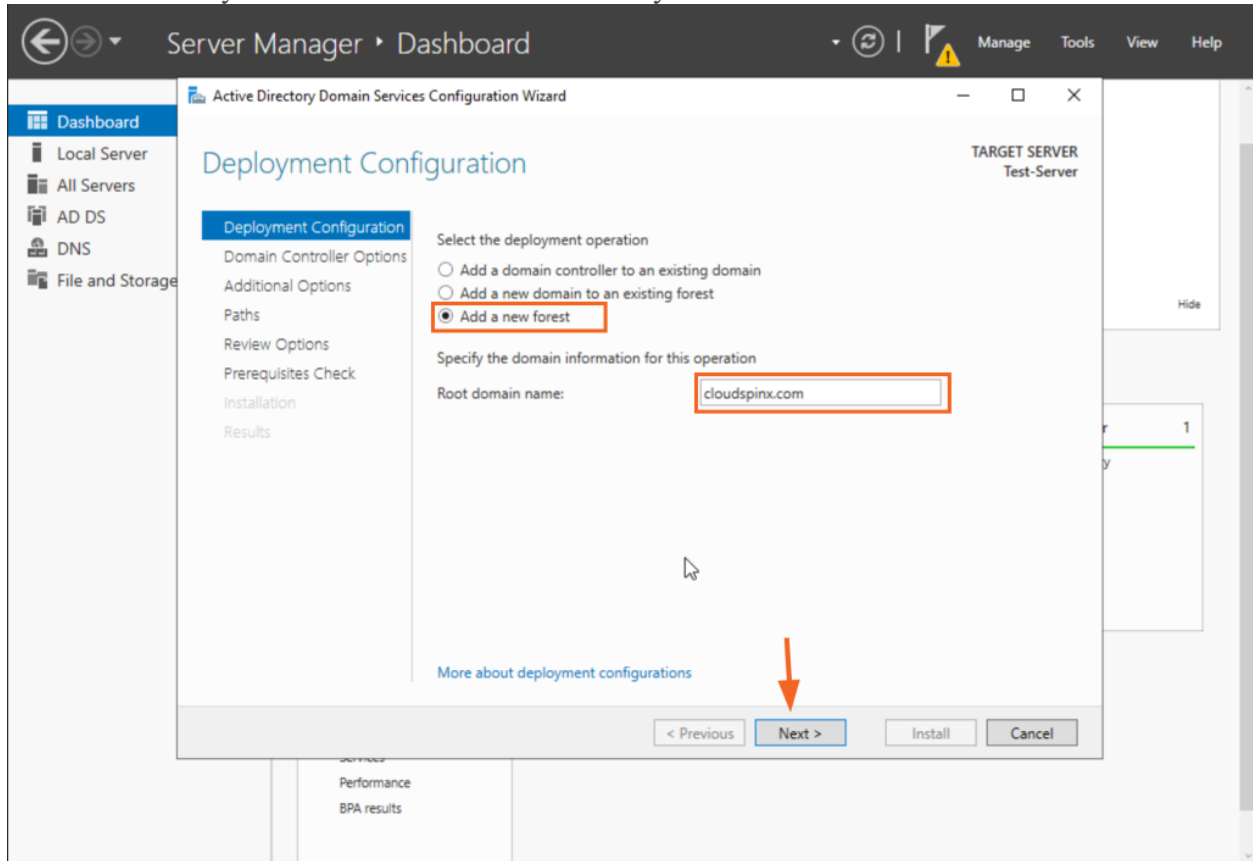


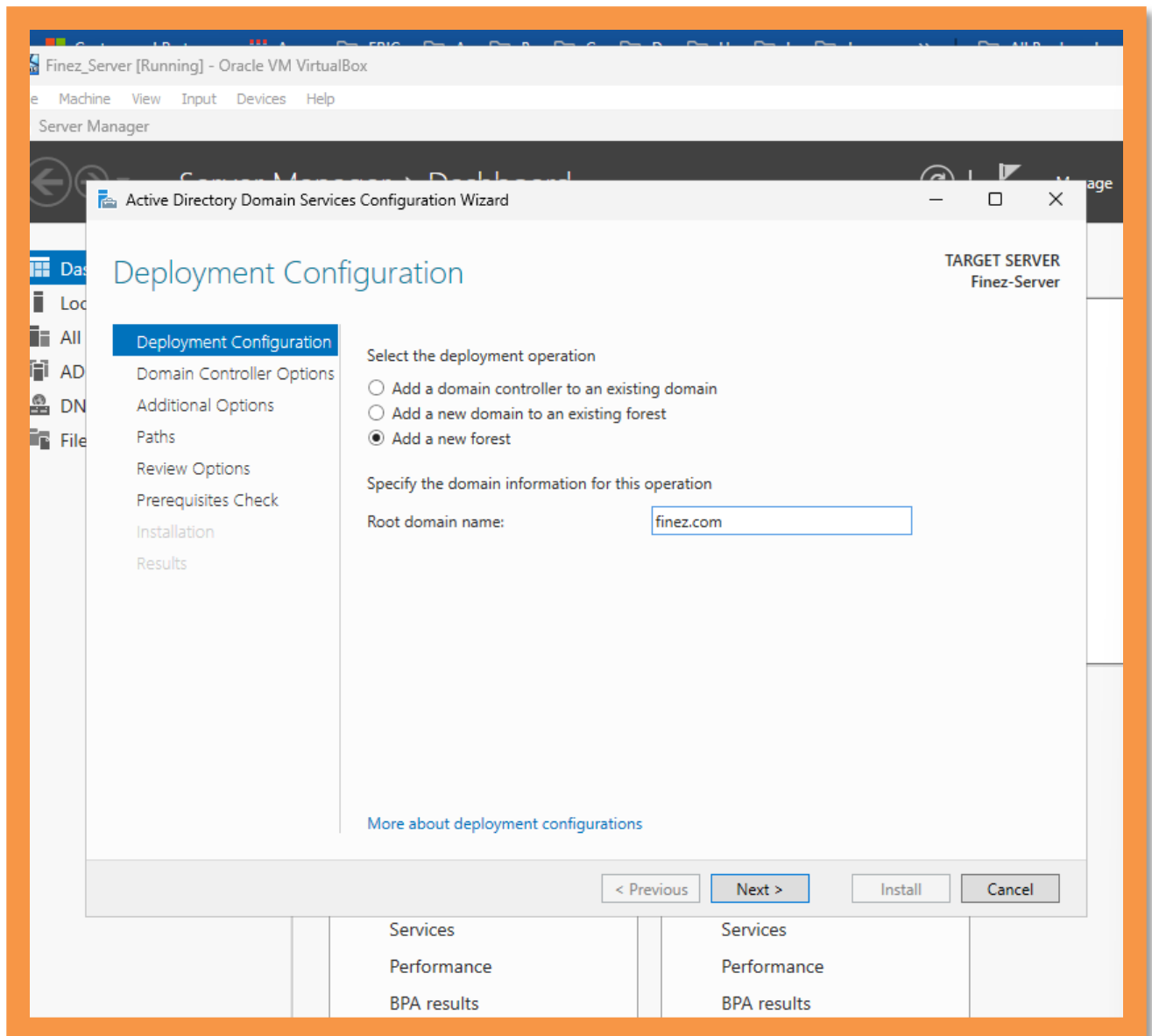
After Active Directory Domain Services installation is complete, please open Server Manager and locate the “**Manage**” tab, which will have a yellow exclamation notification next to it. Click on it and select “**Promote this server to a domain controller**”.



### Step 10: Add a New Forest

In this step, we will **add a new Forest** and customize your **root domain name**. Set your root domain name to your **lastname.com**. Please enter your root domain name and click on “Next”.

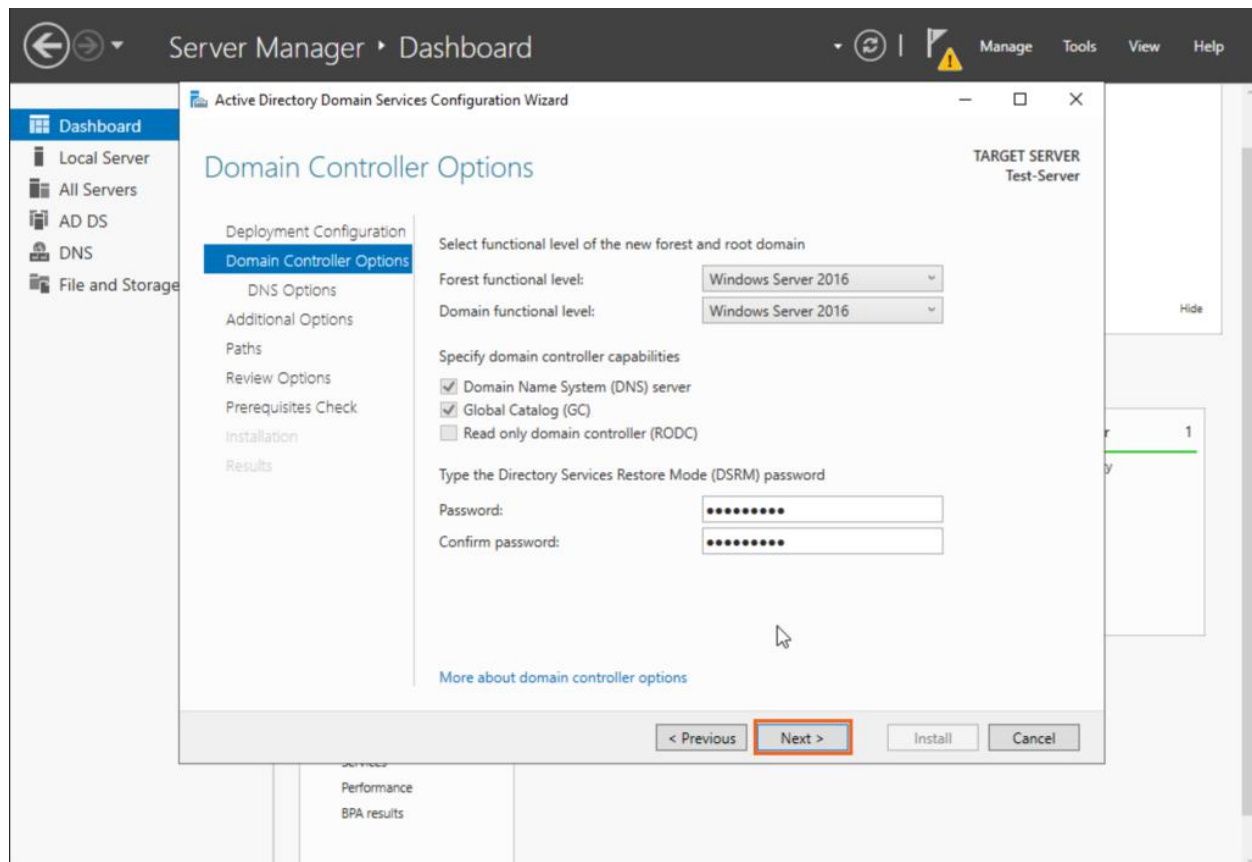




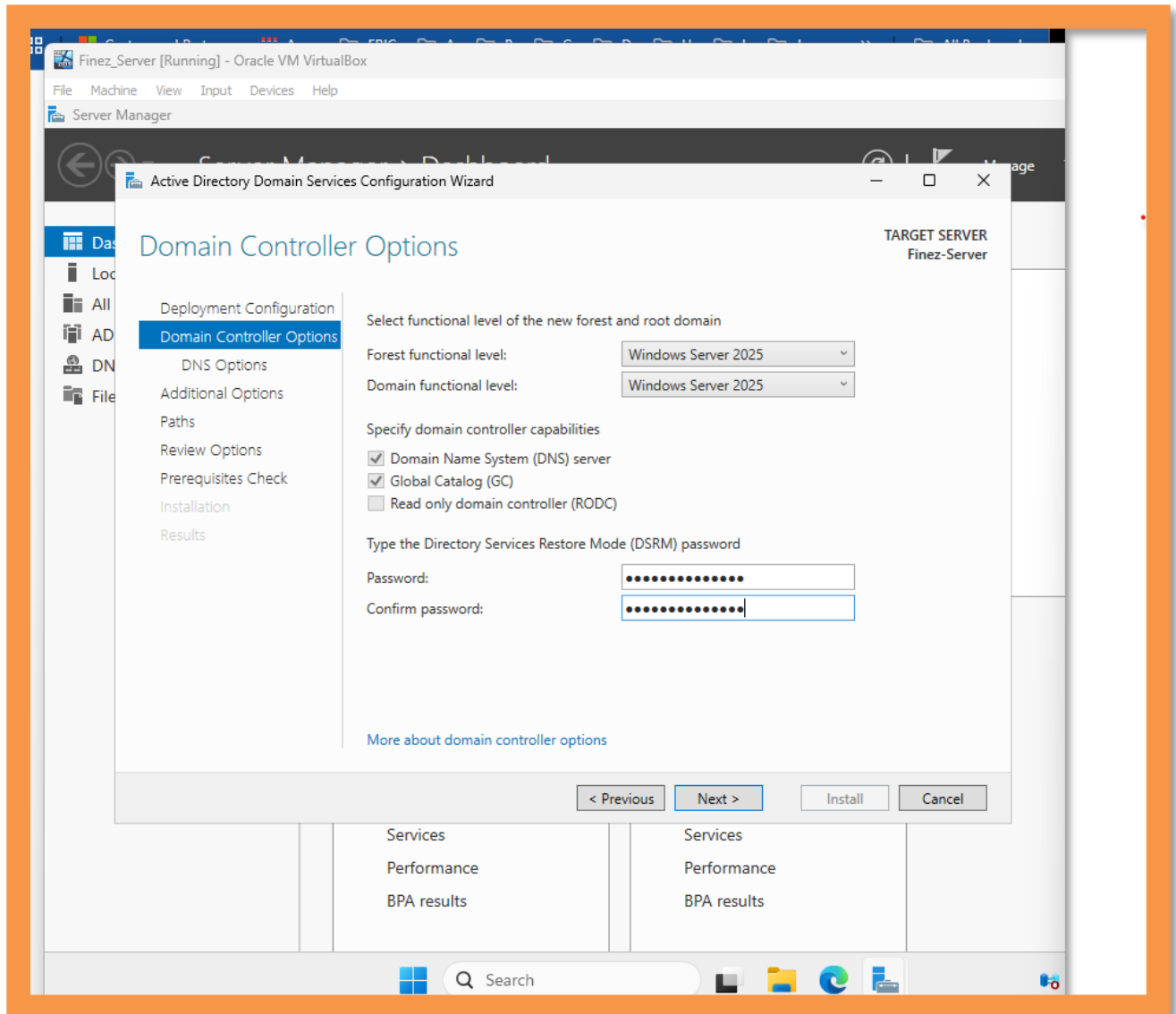
### *Step 11: Domain Controller Options*

In the Domain Controller options, keep the default settings checked and set your password. After that, click on “**Next**”.



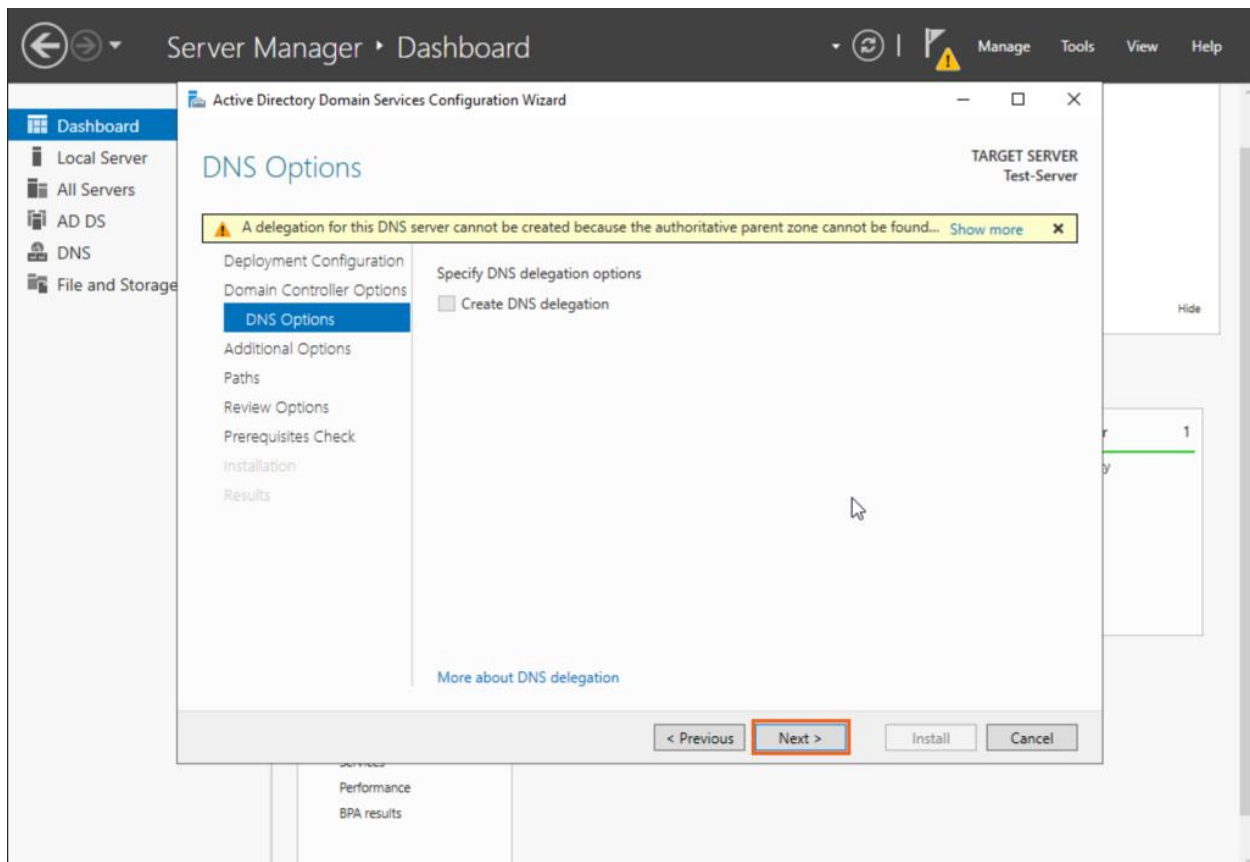


JorellAndrei23



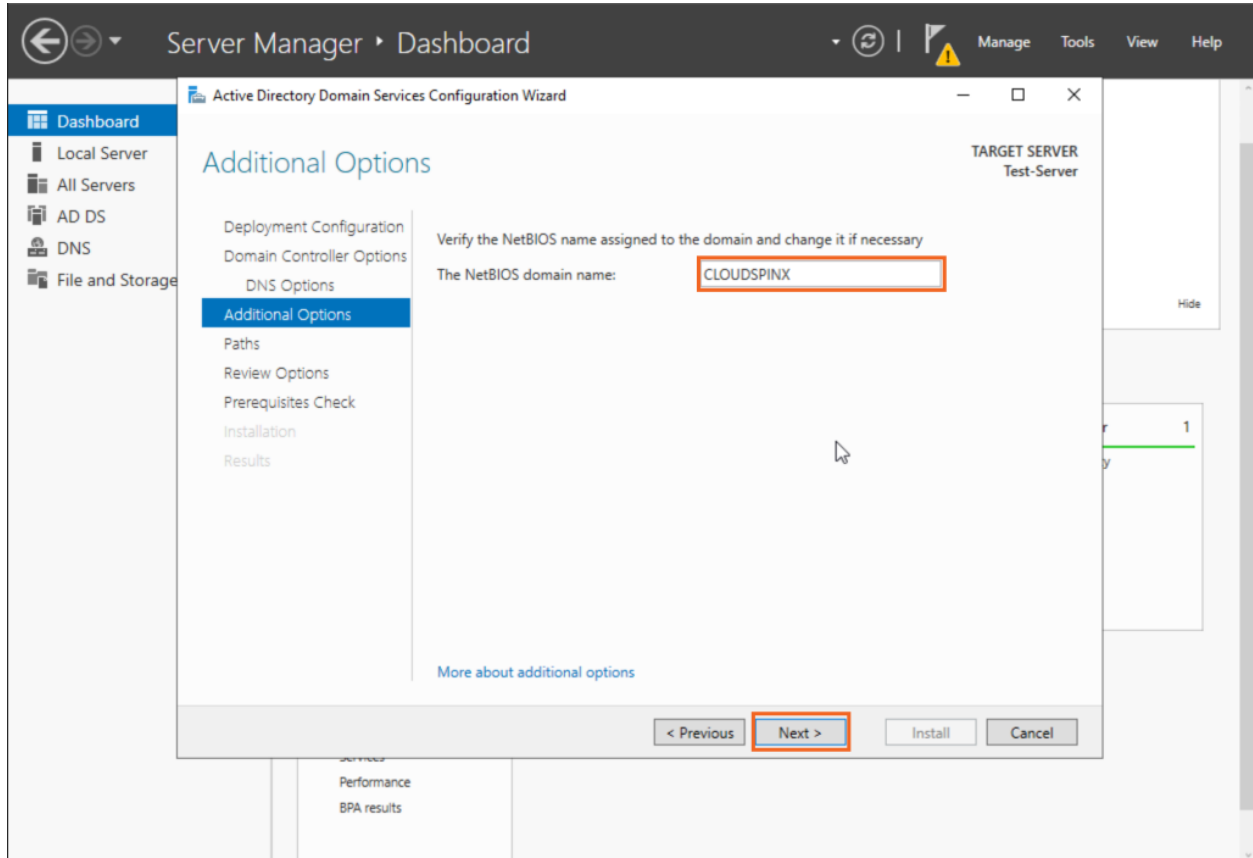
### *Step 12: DNS Options*

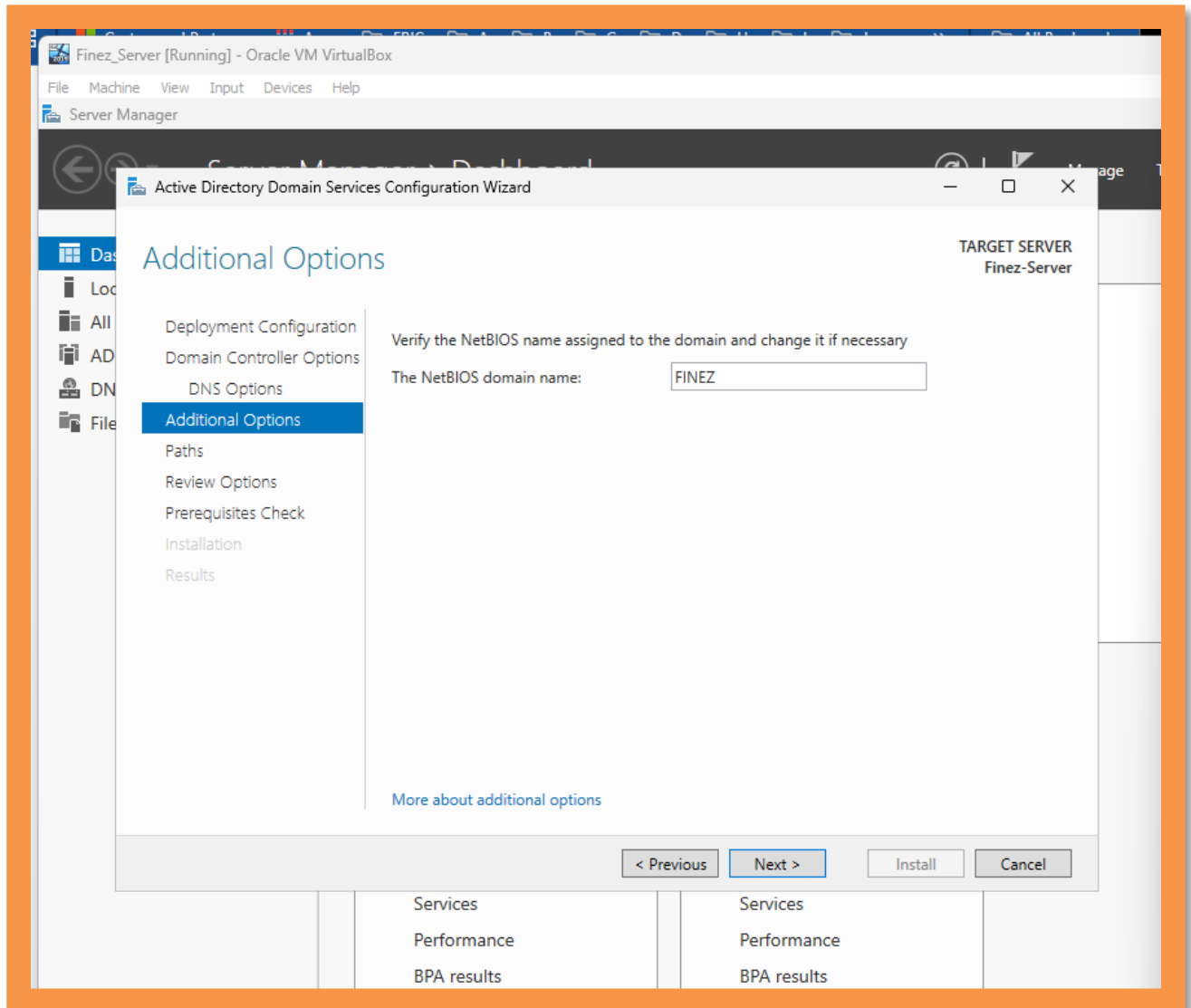
On the “**DNS Options**” page, there will be a notification at the top stating “A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found”. Please disregard this message and proceed by clicking on “**Next**”.



### Step 13: Additional Options

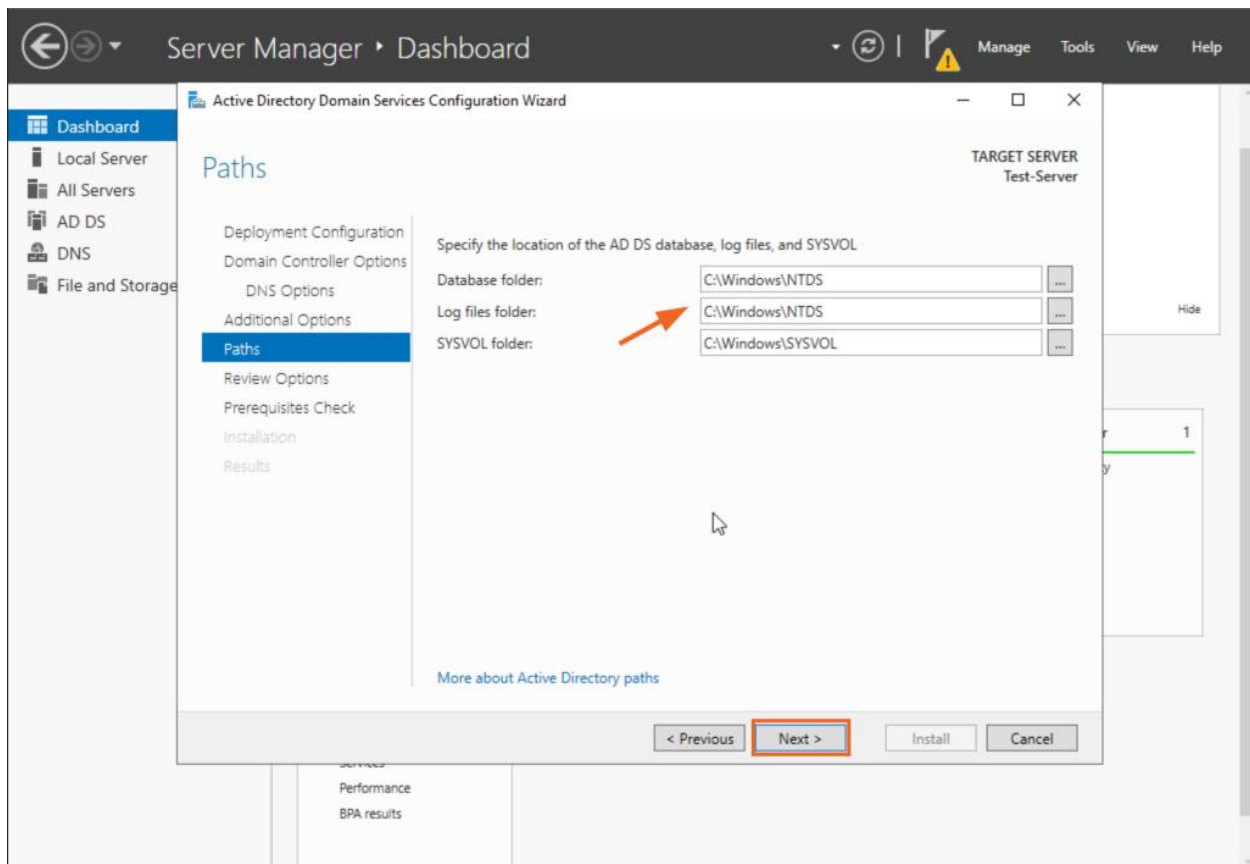
On the page, you can modify the NetBIOS domain name as long as it doesn't exceed 15 characters. You are also able to keep the NetBIOS domain name as default. Once you have made your selection, click on "Next".





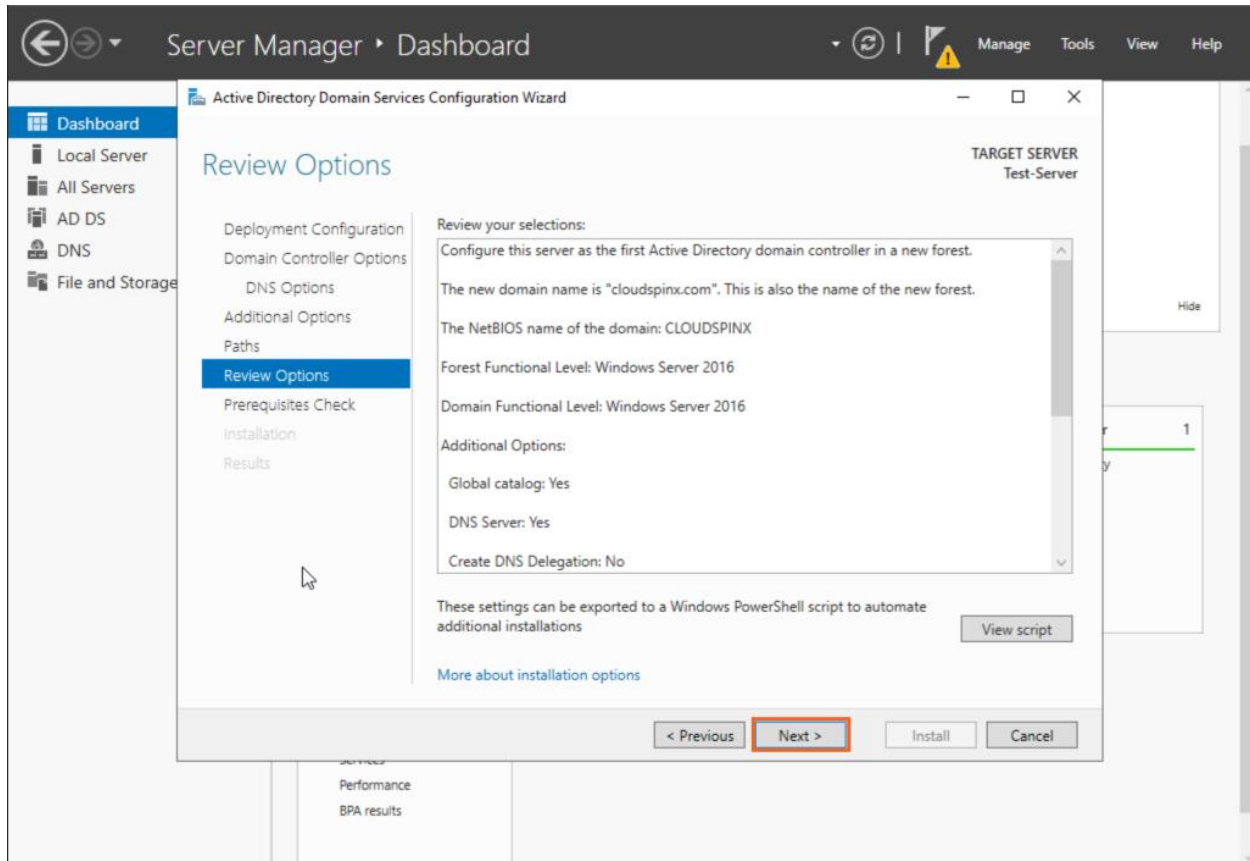
#### *Step 14: Set Path*

Please leave paths as default and click “*Next*” as shown below.



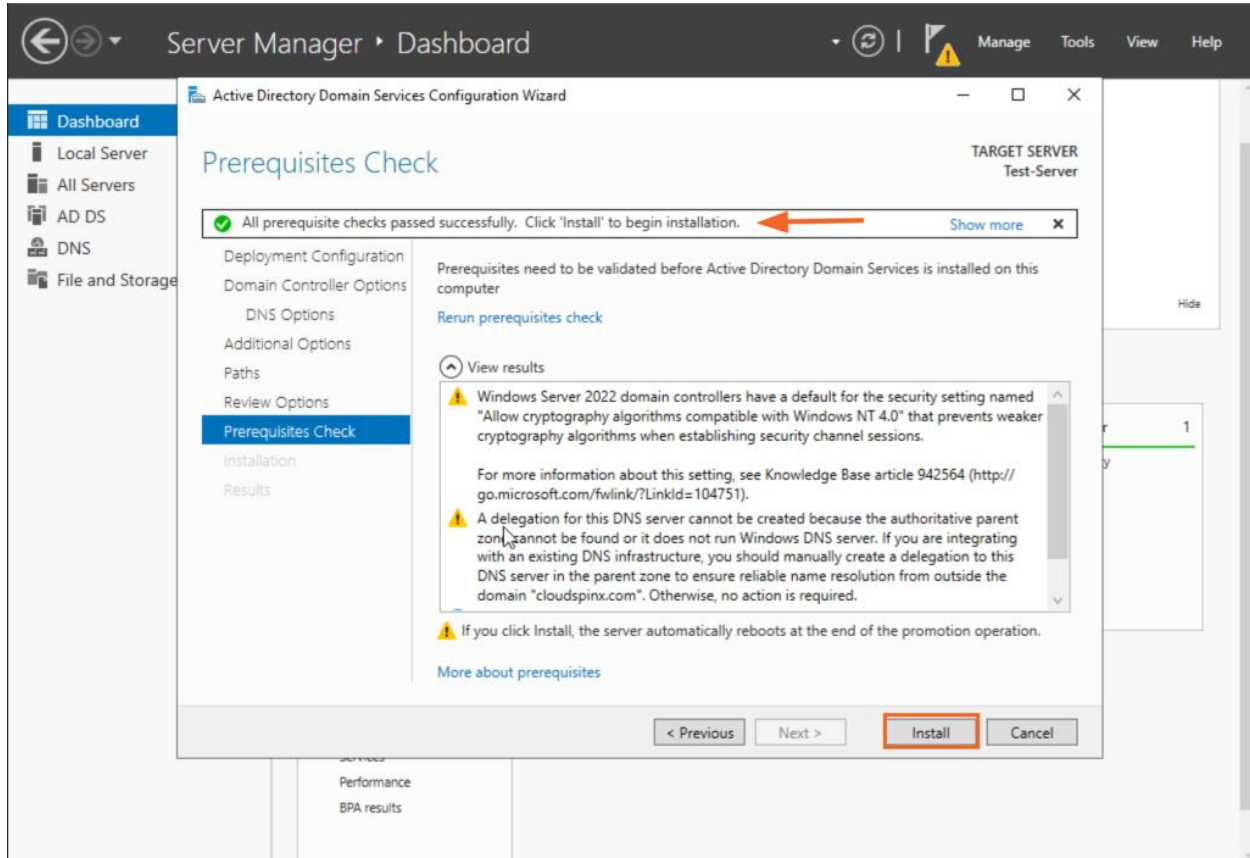
### Step 15: Review Options

At this stage, the server will display a summary of the selections you have made. If you don't want to change your choices, click on **“Next”** to proceed.



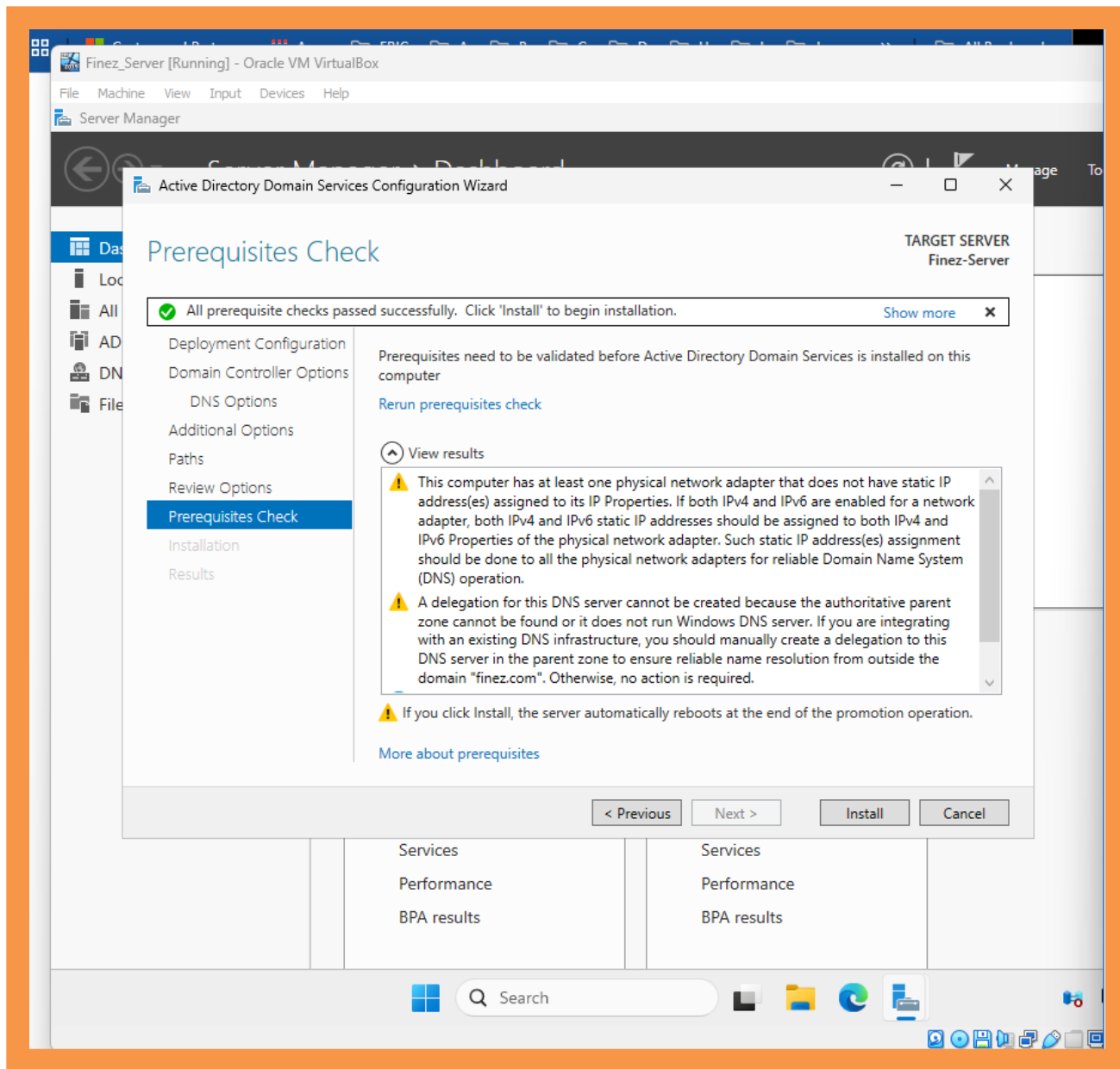
### Step 16. Check Prerequisites

Prerequisites need to be validated before Active Directory Services is installed on the computer. The server will provide a summary of the selections you have made. If you are content with your choices, proceed by clicking on **“Install”**.



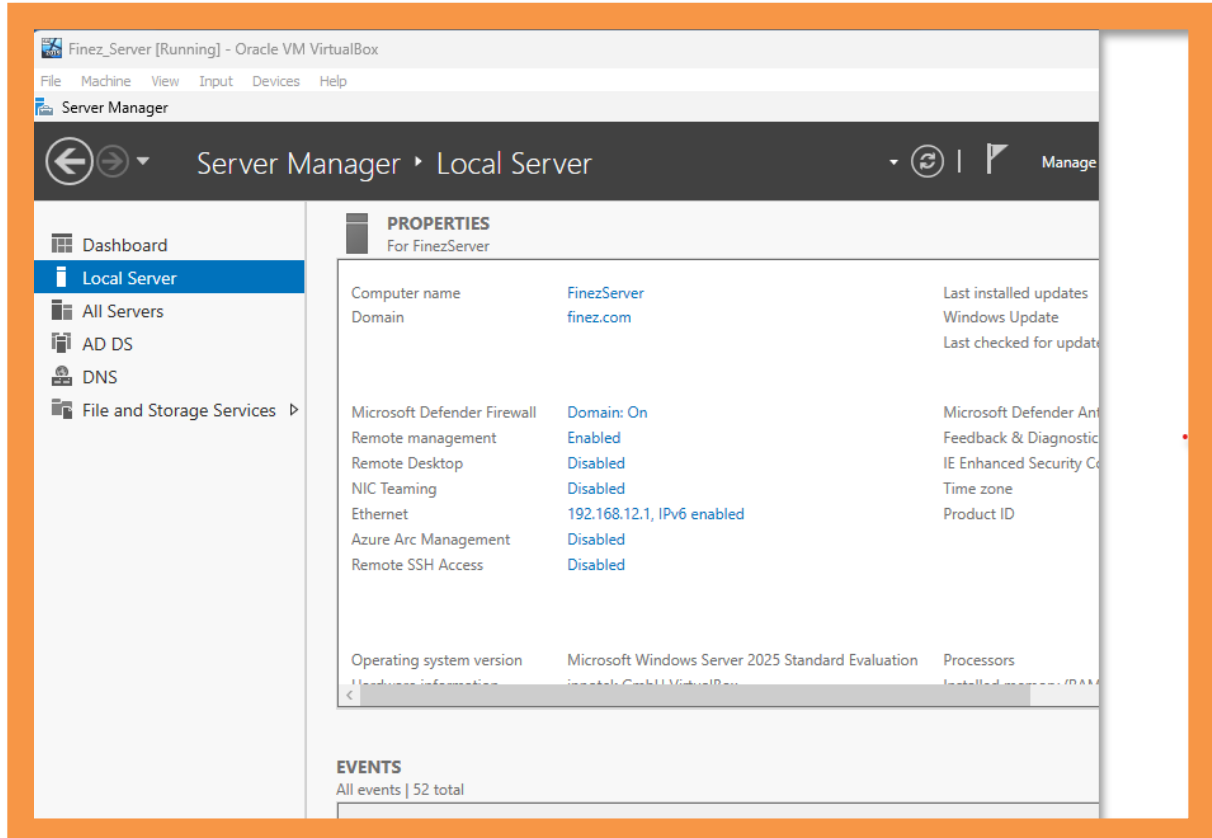
Then your server will reboot. After that, you can log into the Domain with your password.

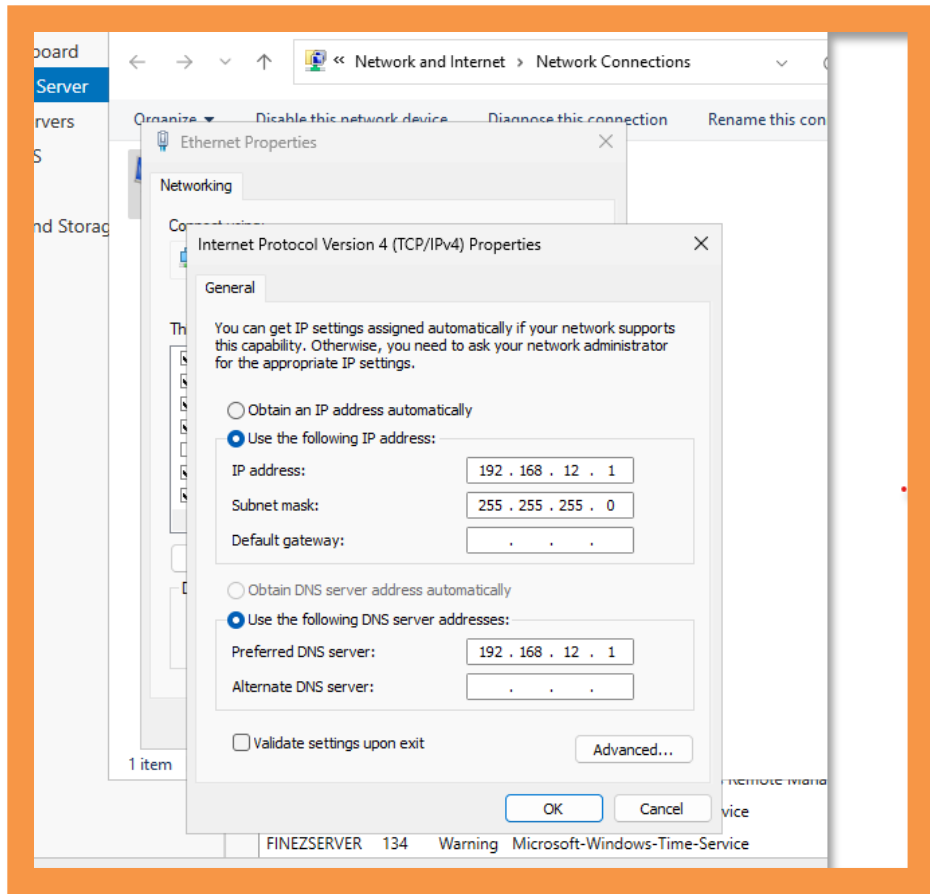




6. Configure your server with the following IP address information:

	Windows Server 2025	Windows 7 Client	Windows 10 Client
Hostname	SurnameServer	SurnameClient	SurnameClient
IP	192.168.12.1	192.168.12.10	192.168.12.11
DNS	192.168.12.1	192.168.12.1	192.168.12.1
Subnet Mask	255.255.255.0	255.255.255.0	255.255.255.0





Finez\_Server [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Server Manager

Server Manager ▸ Local Server

Manage Tools View Help

Dashboard

Local Server

All Servers

AD DS

DNS

File and Storage Services ▸

**PROPERTIES**  
For FiniezClient

Computer name: FiniezClient  
Domain: finiez.com

Last installed updates: Never  
Windows Update: Download updates  
Last checked for updates: Never

Microsoft Defender Firewall: Domain: On  
Remote management: Enabled  
Remote Desktop: Disabled  
NIC Teaming: Disabled  
Ethernet: 192.168.12.10, IPv6 enabled  
Azure Arc Management: Disabled  
Remote SSH Access: Disabled

Microsoft Defender Antivirus: Real-Time Protection: On  
Feedback & Diagnostics: Settings  
IE Enhanced Security Configuration: On  
Time zone: (UTC+08:00) Singapore  
Product ID: 00493-20000-00000-00000-00000

Operating system version: Microsoft Windows Server 2025 Standard Evaluation  
Processors: Intel(R) Core(TM) i7-12700K

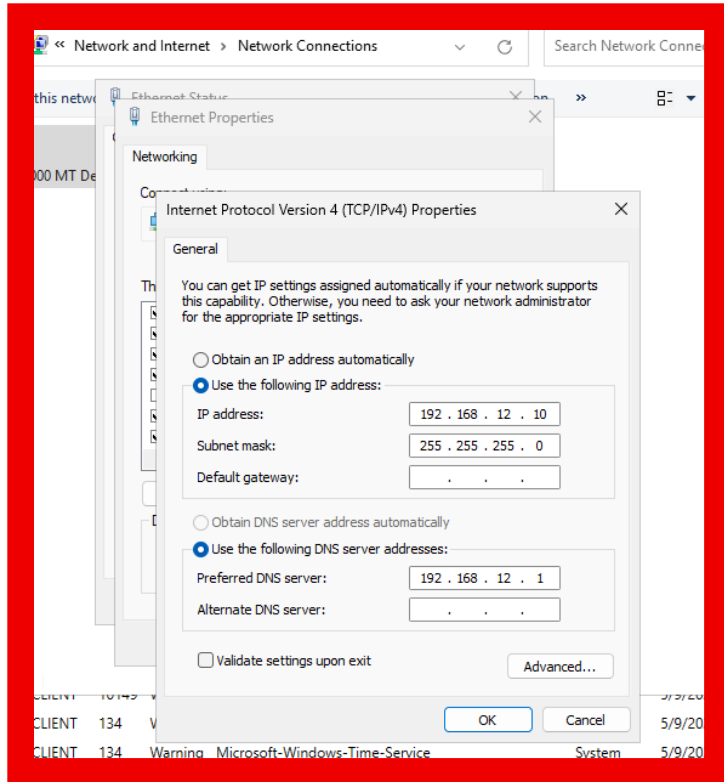
**EVENTS**  
All events | 65 total

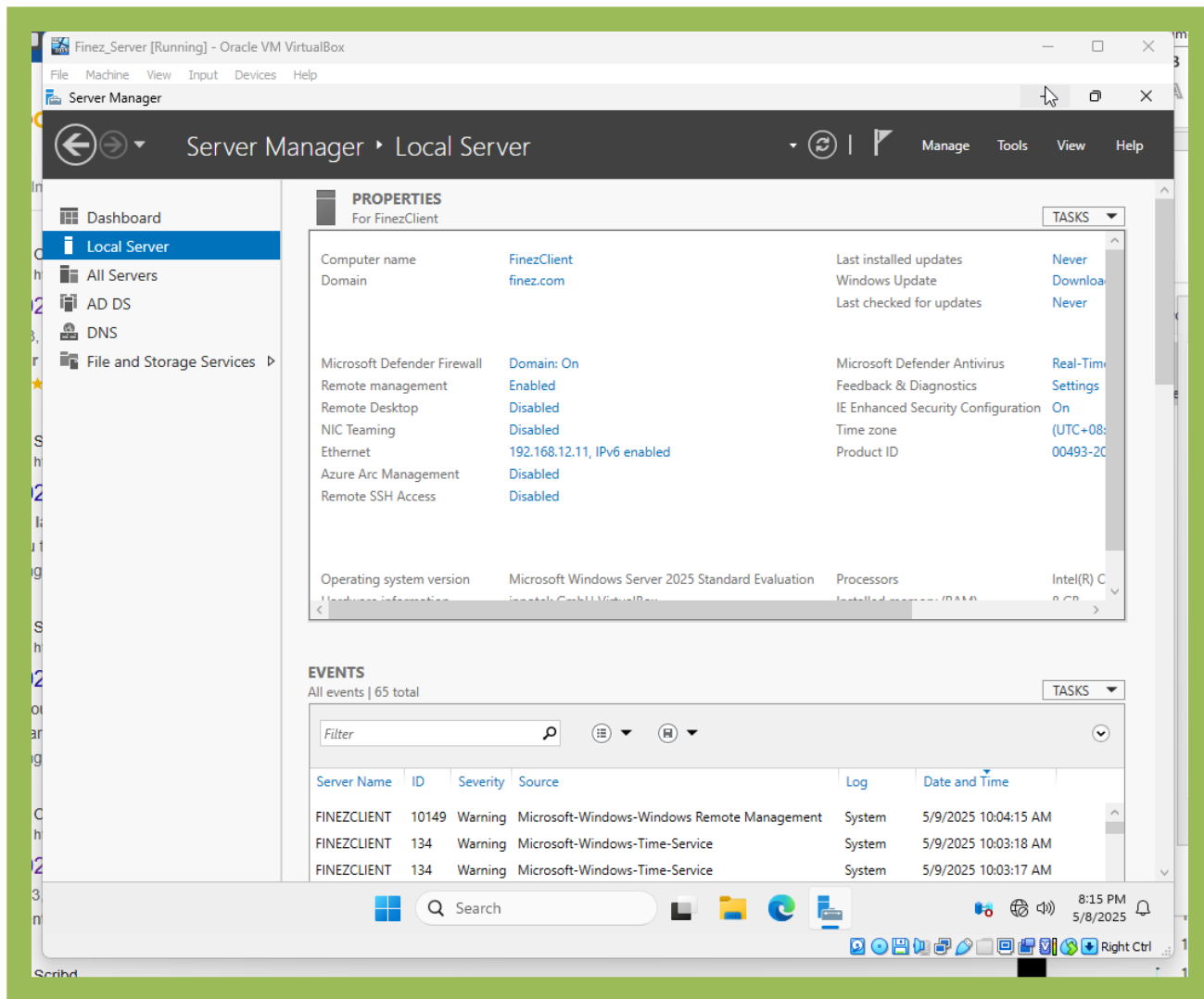
Filter

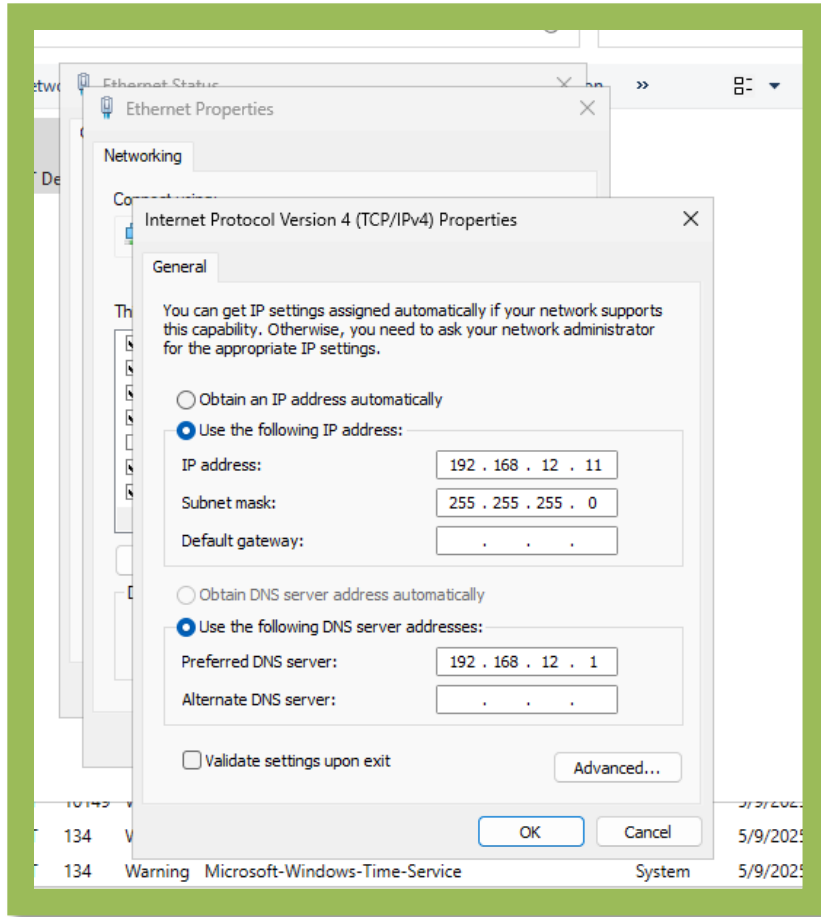
Server Name	ID	Severity	Source	Log	Date and Time
FINEZCLIENT	10149	Warning	Microsoft-Windows-Windows Remote Management	System	5/9/2025 10:04:15 AM
FINEZCLIENT	134	Warning	Microsoft-Windows-Time-Service	System	5/9/2025 10:03:18 AM
FINEZCLIENT	134	Warning	Microsoft-Windows-Time-Service	System	5/9/2025 10:03:17 AM

8:13 PM  
5/8/2025

Right Ctrl







### Grading Rubrics:

<b>Criteria</b>	<b>Well Implemented</b>	<b>Satisfactory Implemented</b>	<b>Fairly Implemented</b>	<b>Not Implemented</b>
<b>Accuracy of Output (x8)</b> <ul style="list-style-type: none"> <li>Are the results as expected?</li> </ul>	4	3	2	1
<b>Completeness (x8)</b> <ul style="list-style-type: none"> <li>Do all instructions are performed?</li> </ul>	4	3	2	1
<b>Presentation of Report (x3)</b> <ul style="list-style-type: none"> <li>Clearly present the required outputs and information</li> </ul>	4	3	2	1
<b>Timeliness (x3)</b> <ul style="list-style-type: none"> <li>Submitted the lab activity report within the given time frame</li> </ul>	4	3	2	1
<b>Observation and Conclusion(x3)</b>	4	3	2	1

<ul style="list-style-type: none"> <li>• Meaningful observation and conclusion with no grammar error</li> </ul>				
<b>Total</b>				

## VII. REFERENCES

- Blokdyk, Gerardus (2018). *Information security management system A Clear and Concise Reference. 5STARCooks.*
- Blokdyk, Gerardus (2018). *Security Management Information System A Complete Guide. 5STARCooks.*
- Francis, Dishan (2017). *Mastering Active Directory: Understand the Core Functionalities of Active Directory Services Using Microsoft Server 2016 and PowerShell. Packt*
- Kim, David, Solomon, Michael (2016). *Fundamentals of Information Systems Security 3rd Edition. Jones and Barnet Learning.*
- Limoncelli, Thomas;Hogan, Christina; Chalup, Srata (2016). *The Practice of System and Network Administration: Volume 1: DevOps and other Best Practices for Enterprise IT (3rd Edition) 3rd Edition. Addison-Wesley*