

Experiment No: 6

Date:

PRINT MANAGEMENT AND FIREWALL CONFIGURATION

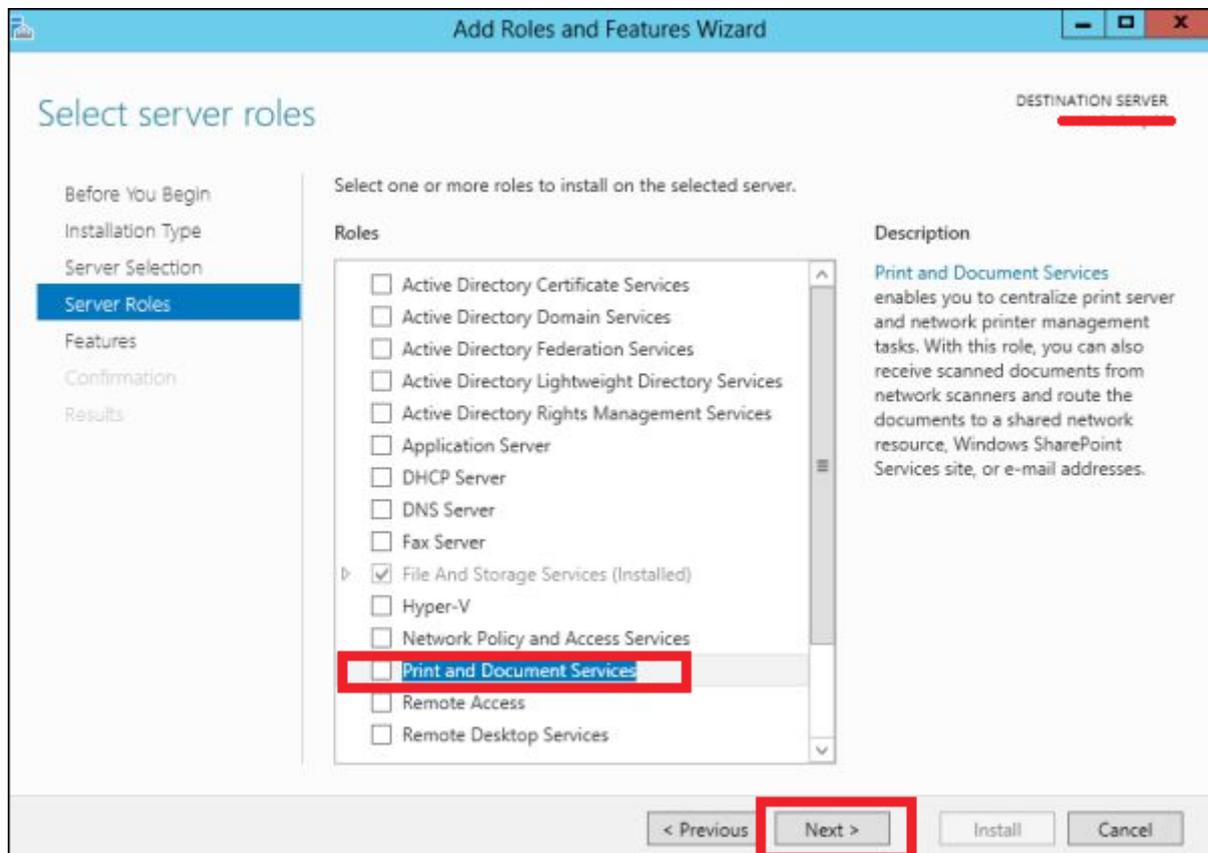
AIM:

To demonstrate Print Management and Firewall Configuration.

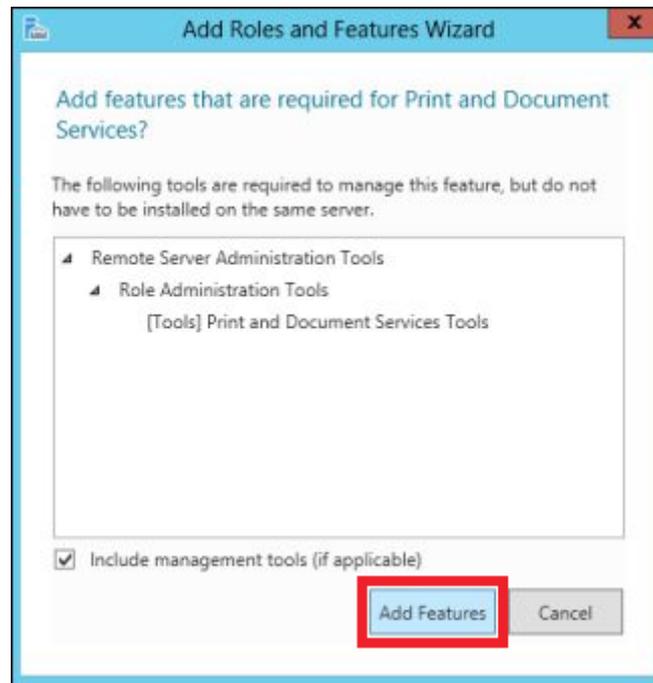
PROCEDURE:

PRINT MANAGEMENT

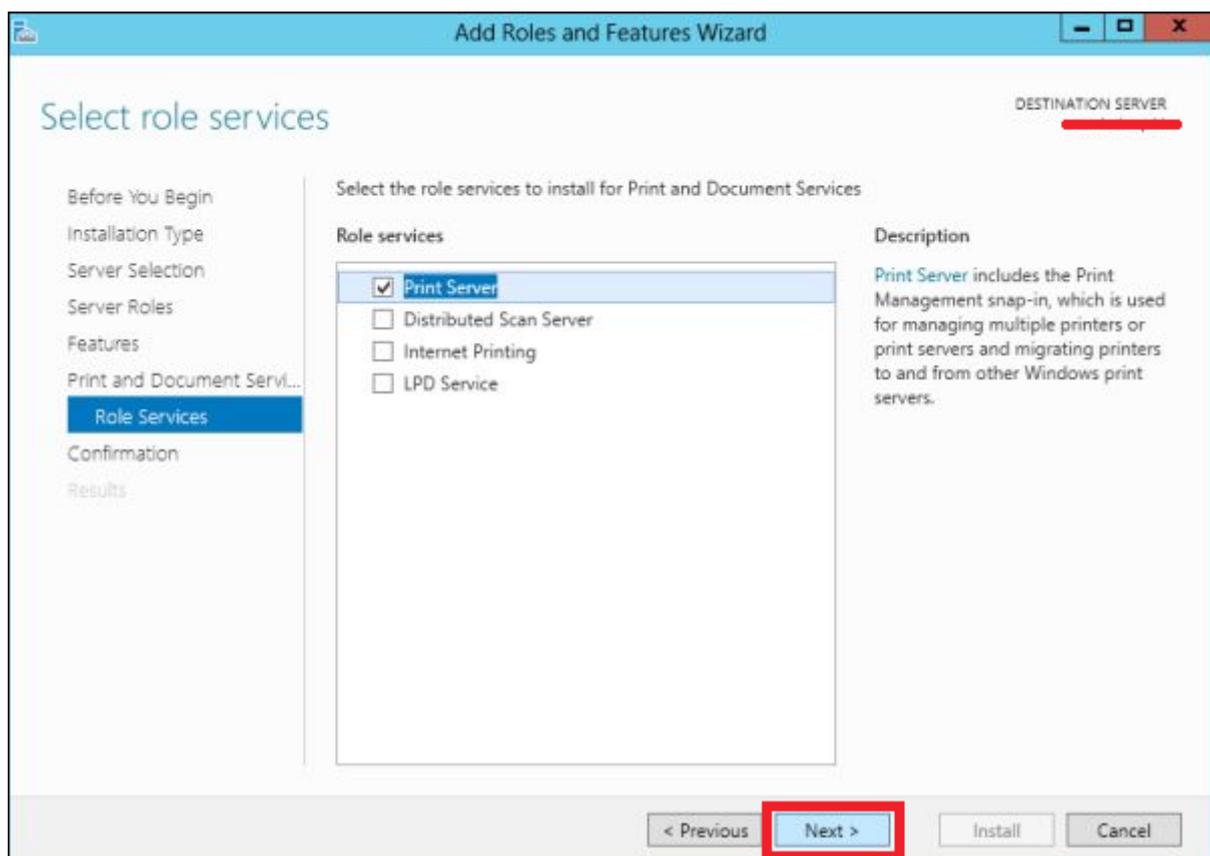
1. Go to Server Manager → Manage → Add Roles and Features → Next → Check on the **Role-based or feature-based installation** box and → Check on **Select a server from the server pool** and then → Next. Once it is done then, at the list of the roles find **Print and Document Services** → A popup window will open.



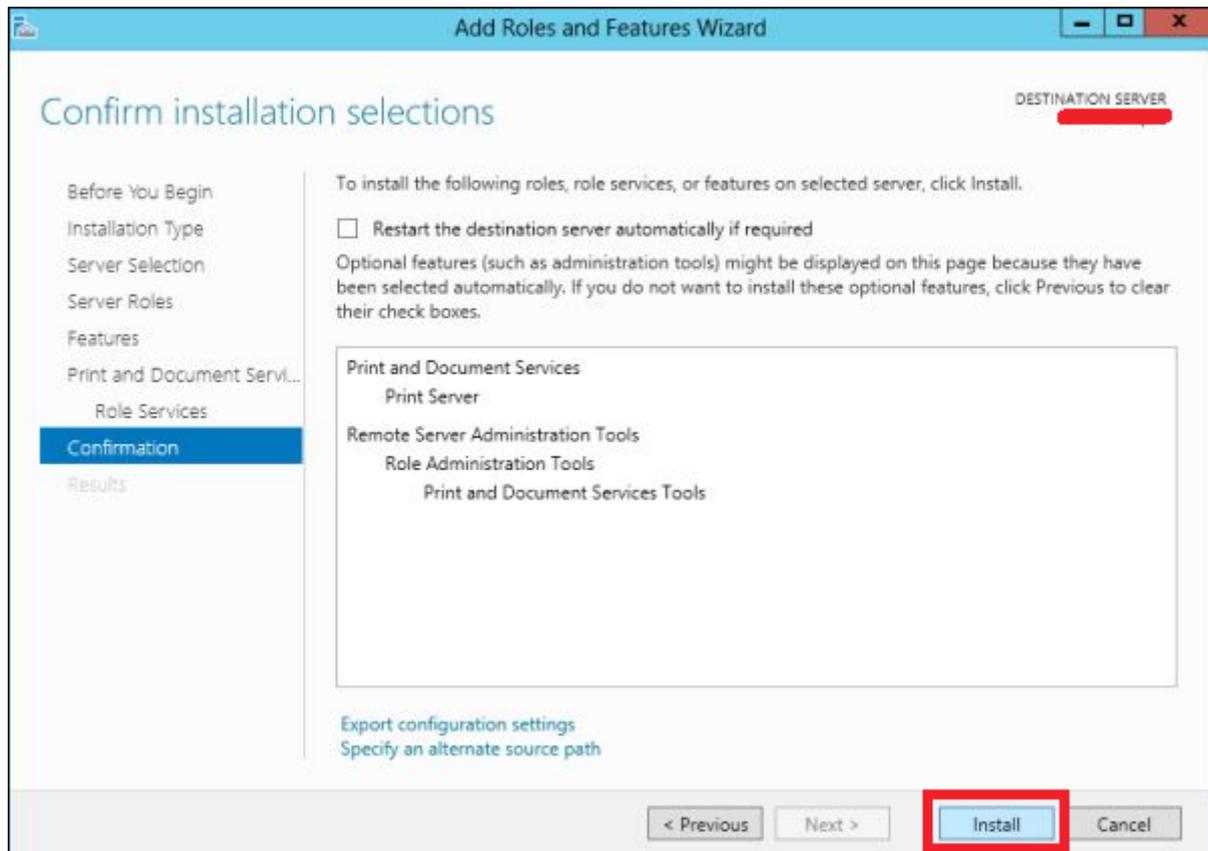
2. Click on **Add features** and then → Next → Next → Next.



3. Check on the **Print Server** box and → Next.

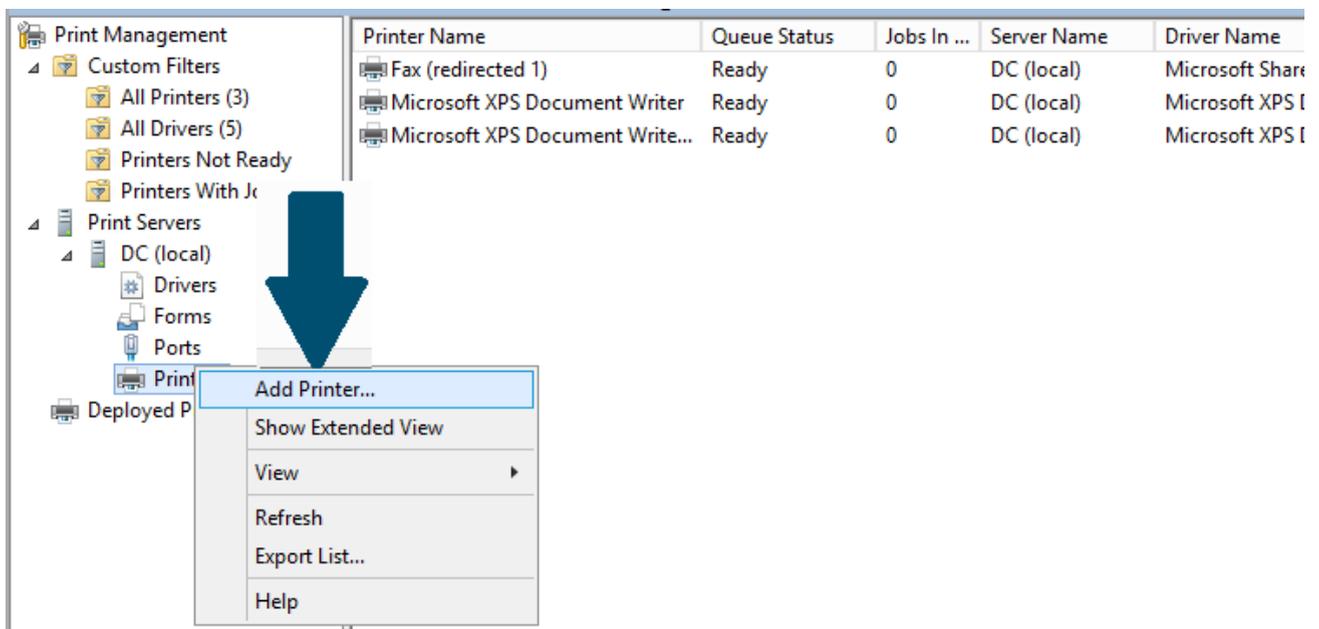


4. Click Install.



Configuring the Print Server

5. Click on **Server Manager** → **Tools** → **Print Management** → then on the left panel click **Print Servers** → then right click on **Printers** and → **Add Printer**.



- Attach the printer to your computer. Choose the right port where your printer is connected.

Printer Installation

Pick an installation method.

Search the network for printers

Add a TCP/IP or Web Services Printer by IP address or hostname

Add a new printer using an existing port:

Create a new port and add a new printer:

TS001 (LAPTOP-HOST: PRN2:# 1) ▼

LPT1: (Printer Port)

LPT2: (Printer Port)

LPT3: (Printer Port)

COM1: (Serial Port)

COM2: (Serial Port)

COM3: (Serial Port)

COM4: (Serial Port)

FILE: (Print to File)

PORTPROMPT: (Local Port)

TS001 (LAPTOP-HOST: PRN2:# 1)

TS002 (LAPTOP-HOST: PRN5:# 1)

TS003 (LAPTOP-HOST: PRN4:# 1)

TS004 (LAPTOP-HOST: PRN3:# 1)

- Choose "Use an existing printer driver on the computer" if you have an existing printer driver otherwise choose "Install a new driver" and follow the wizard. Click Next.

Printer Driver

Pick a driver for the new printer.

Use the printer driver that the wizard selected

Compatible driver cannot be found.

Use an existing printer driver on the computer

HP Deskjet 1010 Series Class Driver ▼

Install a new driver

< Back Next > Cancel

8. Give a friendly name to your printer and share it with other users on the network. Click Next.

Printer Name and Sharing Settings

You can give the printer a friendly name and specify whether other people can use the printer.

Printer Name:

Share this printer

Share Name:

Location:

Comment:

< Back **Next >** Cancel

9. Click Next to finish the printer installation.

Printer Found

The printer is ready to be installed. Please review the printer settings below, and then click Next to install the printer.

Name: HP Deskjet 1010 Series Class Driver

Share Name: HP Deskjet 1010 Series Class Driver

Model: HP Deskjet 1010 Series Class Driver

Port Type: LAPTOP-HOST: PRN2:# 1

Port Name: TS001

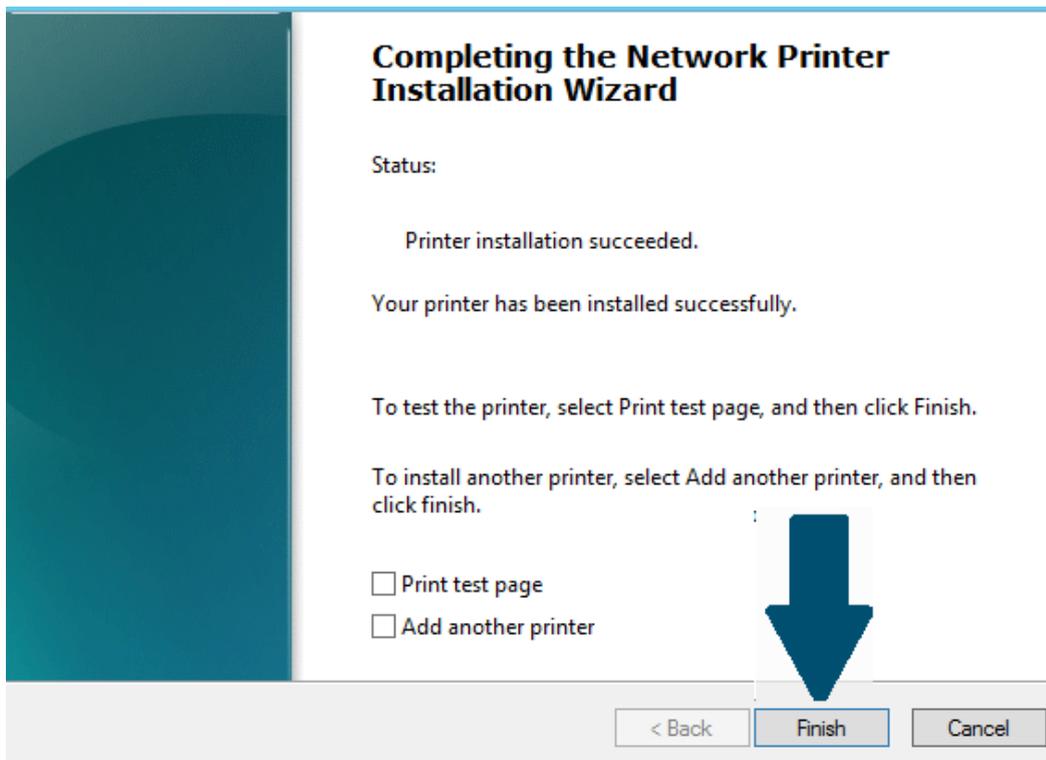
Location:

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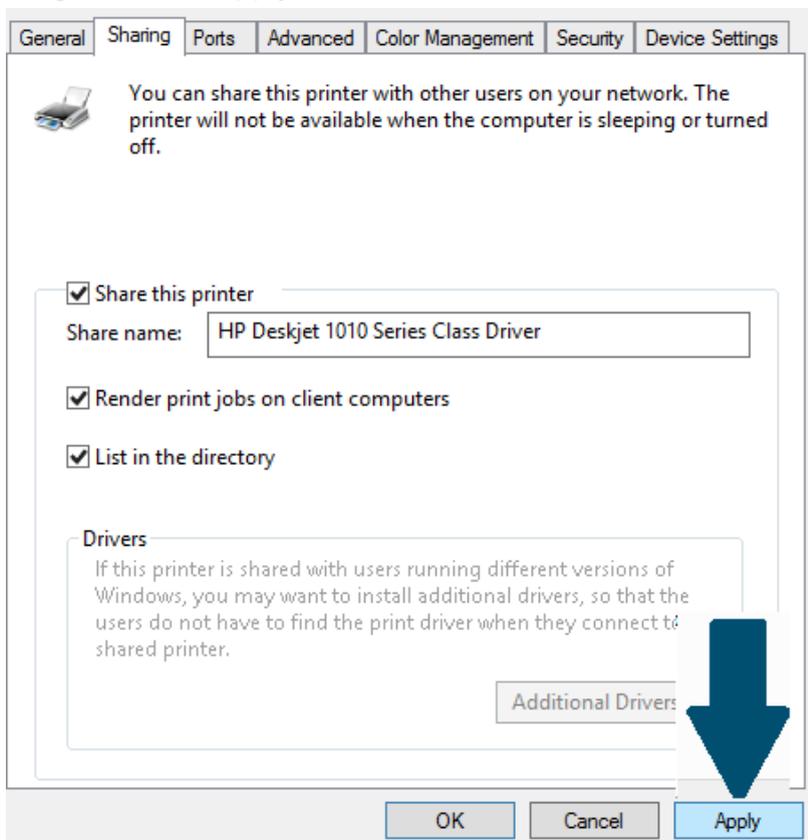
Comment:

< Back **Next >** Cancel

10. Click Finish.



11. Again, go to the **Printer Management Console** and right click on the printer icon. Click Manage Sharing. Go to the Sharing tab and check mark both options as shown in figure. Click Apply and then OK.



12. You have successfully configured and deployed your print server. This printer will be visible to other users on your network.

FIREWALL CONFIGURATION

The Windows Firewall with Advanced Security is a firewall that runs on the Windows Server 2012 and is turned on by default. The Firewall settings within Windows Server 2012 are managed from within the **Windows Firewall Microsoft Management Console**.

Here we are going to **block the incoming ping requests through the firewall**. Ping uses ICMP echo packets and we can block these packets for blocking ping requests.

Before starting, make sure that the firewalls in the server and the client are turned on. In the client command window, check the connection using the Ping utility. Here the server has the IP address 192.168.0.1.

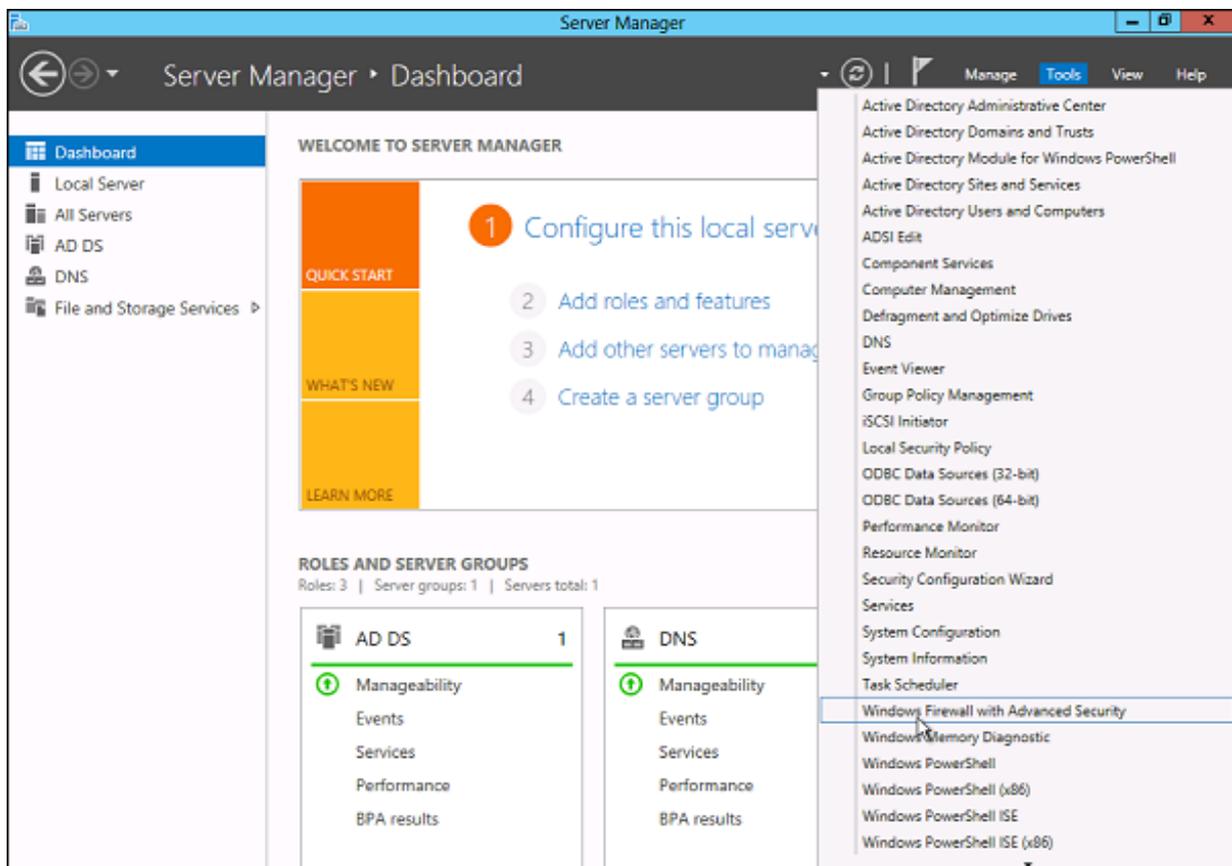
```
C:\Users\y>ping 192.168.0.1

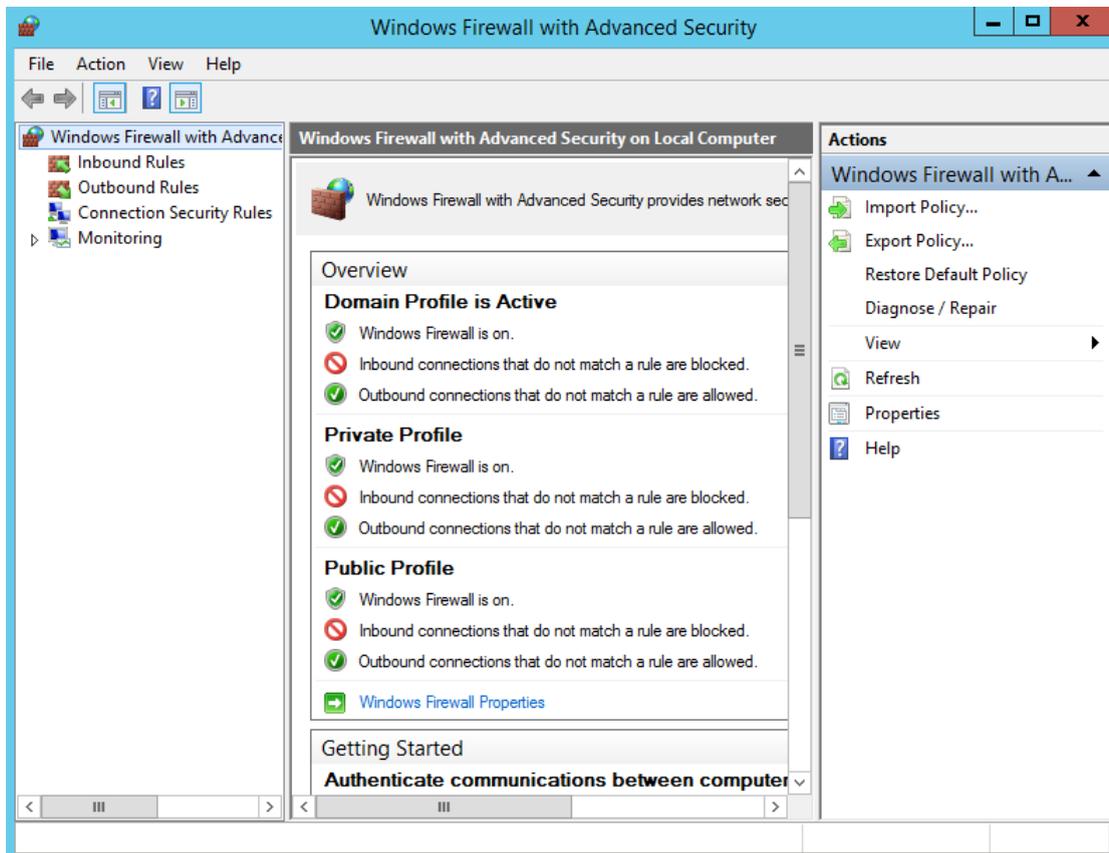
Pinging 192.168.0.1 with 32 bytes of data:
Reply from 192.168.0.1: bytes=32 time=6ms TTL=128
Reply from 192.168.0.1: bytes=32 time=2ms TTL=128
Reply from 192.168.0.1: bytes=32 time=2ms TTL=128
Reply from 192.168.0.1: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 6ms, Average = 2ms
```

To set Firewall settings perform the following steps –

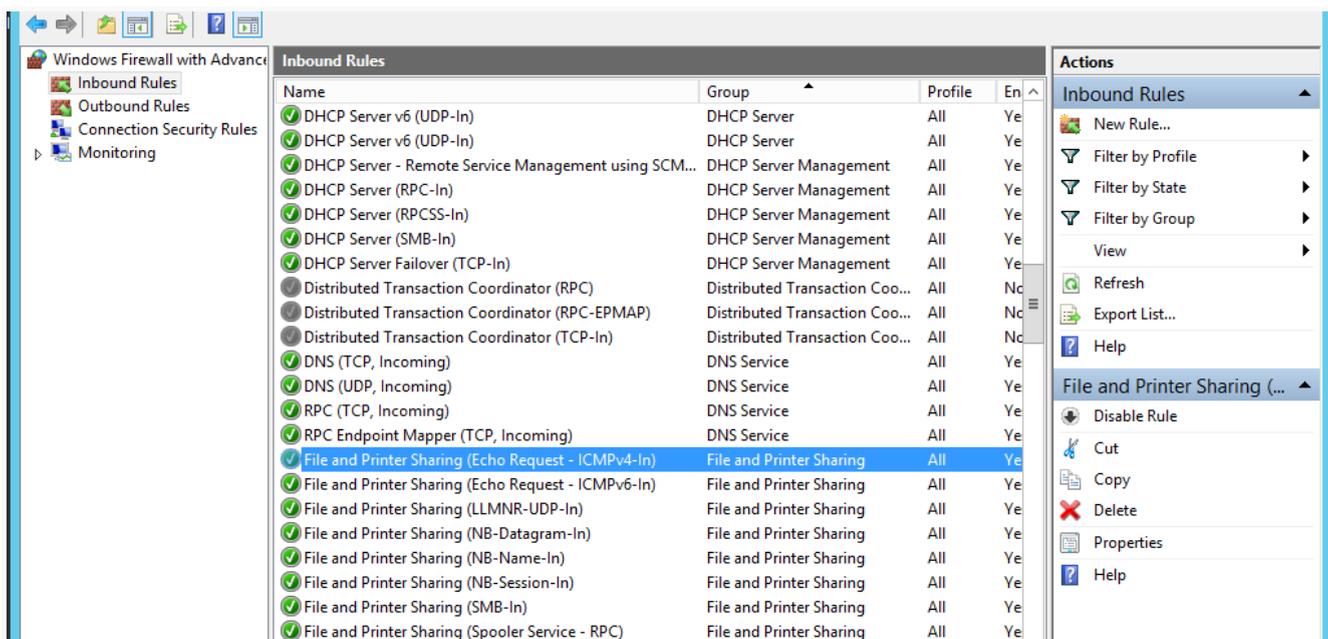
1. Click on the Server Manager from the taskbar → Click the **Tools** menu and select **Windows Firewall with Advanced Security**.



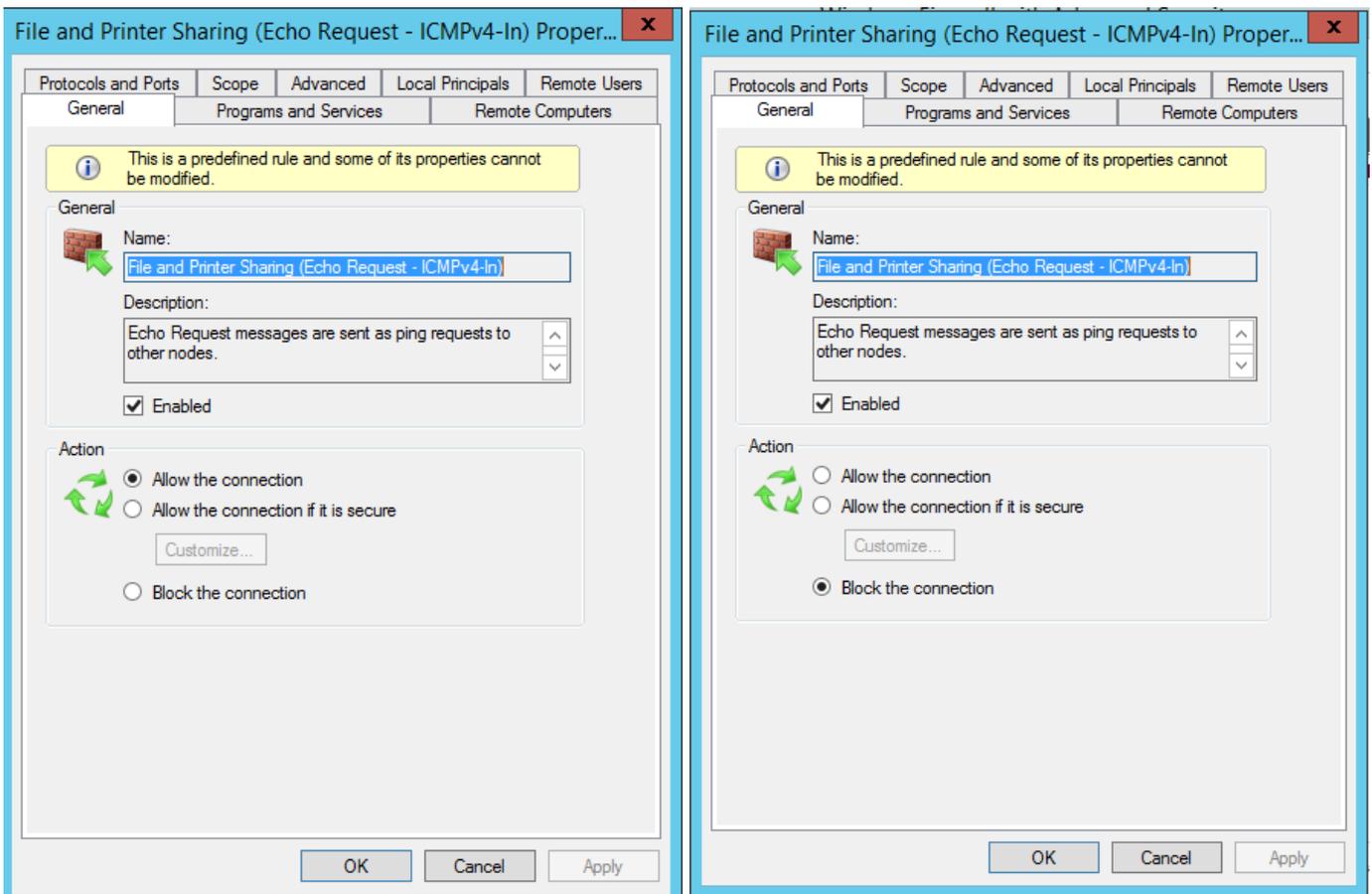


2. Go to the section of incoming rules ("Inbound Rules"). Here we are interested in the predefined rule for IPV4 — "File and Printer Sharing (echo request - incoming ICMPv4 traffic)".

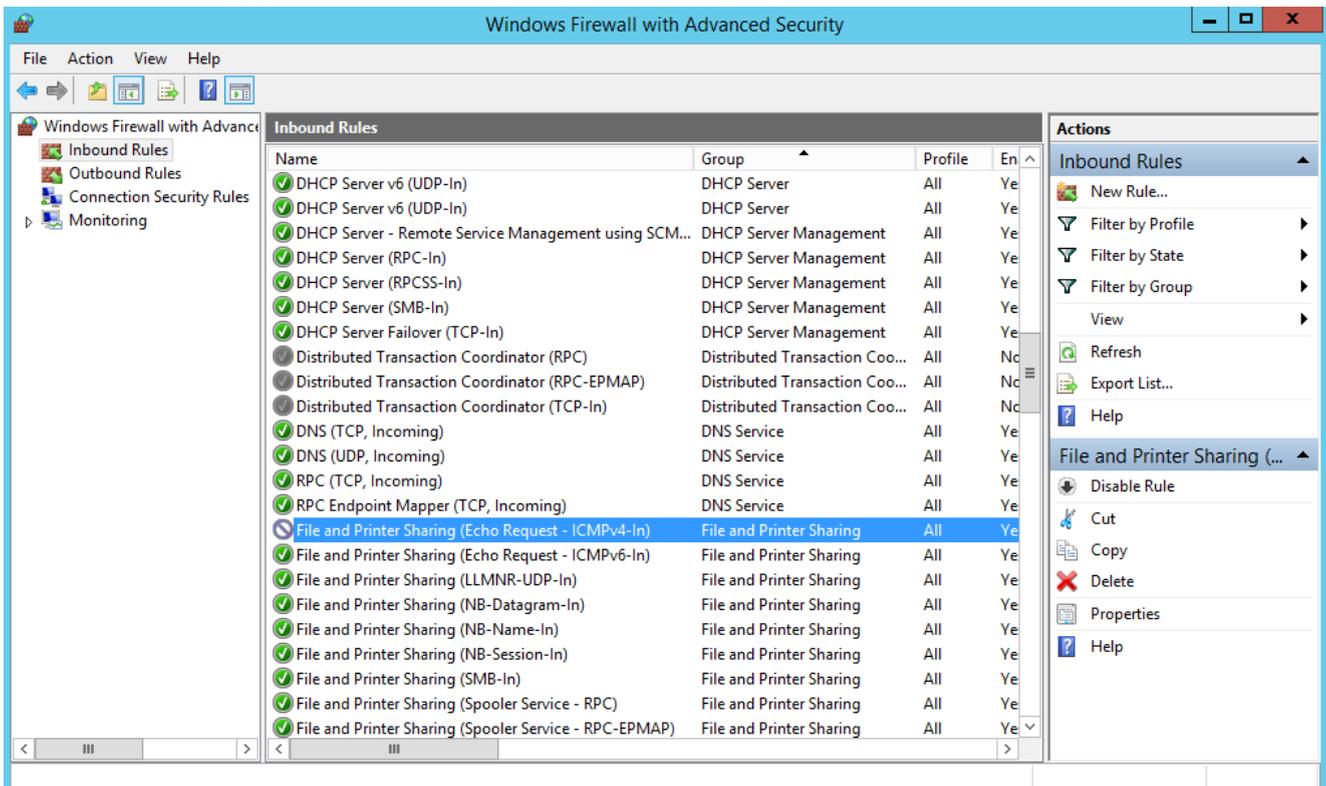
Note that there can be three rules in the table having the same name. In fact, this is the same rule that is simply configured for different profiles: one for the **domain** profile, the second for the **general** and the **private** ones. Sometimes all are combined into one rule and the three profiles can be configured in that rule's properties.



- On double clicking the rule, a new window will turn up showing the **properties** of the rule. In the **General** tab, we can change the **Action** to **Block the connection**.



- Click on Apply and OK. You can notice the change in the rule icon.



5. Check the Ping utility again. Now we cannot get a successful ping, while all other services work fine (such as NFS, DNS, etc.)

```
C:\Users\y>ping 192.168.0.1
Pinging 192.168.0.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

RESULT:

Demonstrated the print management services and tested the firewall configurations successfully.