

Setting up a Windows Lab Environment

In the follow example, I'll show you how to setup an Active Directory Environment using Windows 2012 R2, Windows 7 and Windows 8. These systems are to replicate a real world corporation and can be used for all testing.

Step 1: Setup Static IPs on all the hosts

We need to first setup static IPs for our hosts. We really only need to do it for our Domain Controller, but I've chosen to do it for all my machines.

To edit your systems IPs, go to the following:

Control Panel -> Network and Internet -> View Network and Sharing Center -> Change Adapter Settings -> Right click on Ethernet0 -> Properties -> Internet Protocol Version 4 (IPv4) -> And make it a Static IP

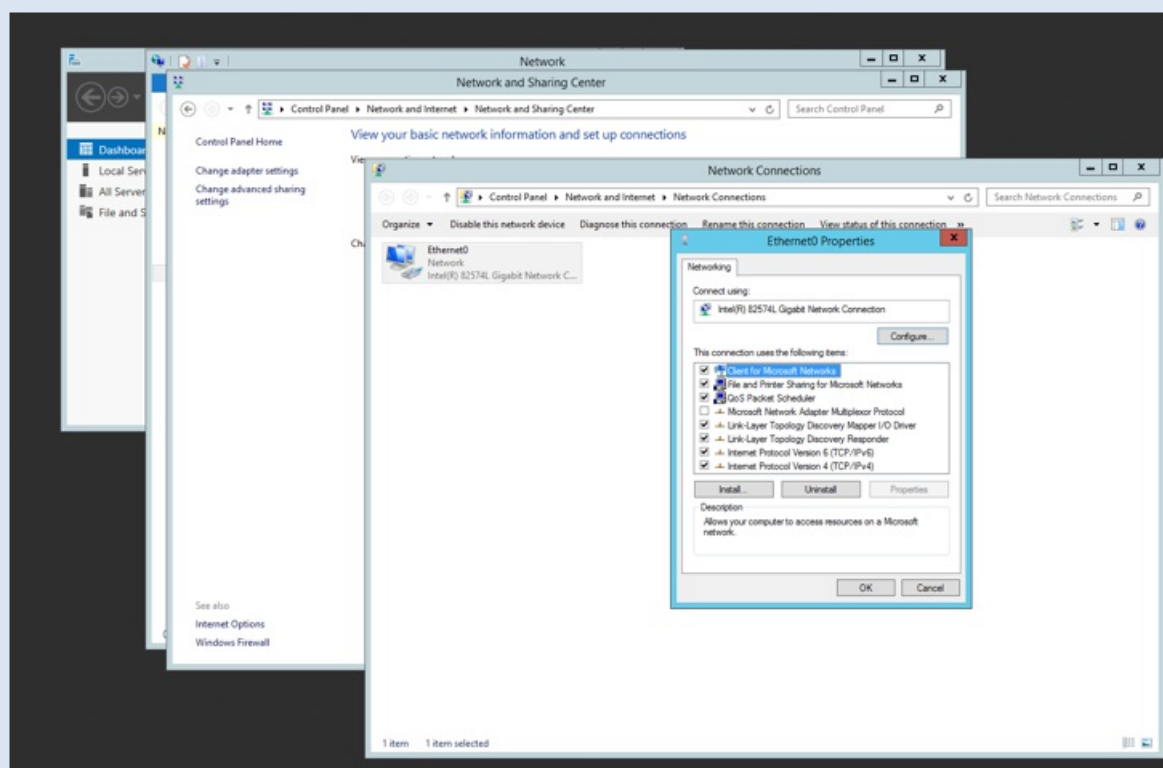
In my case, I setup like this:

Windows 2012 R2 - 172.16.151.200

Windows 8 - 172.16.151.201

Windows 7 - 172.16.151.202

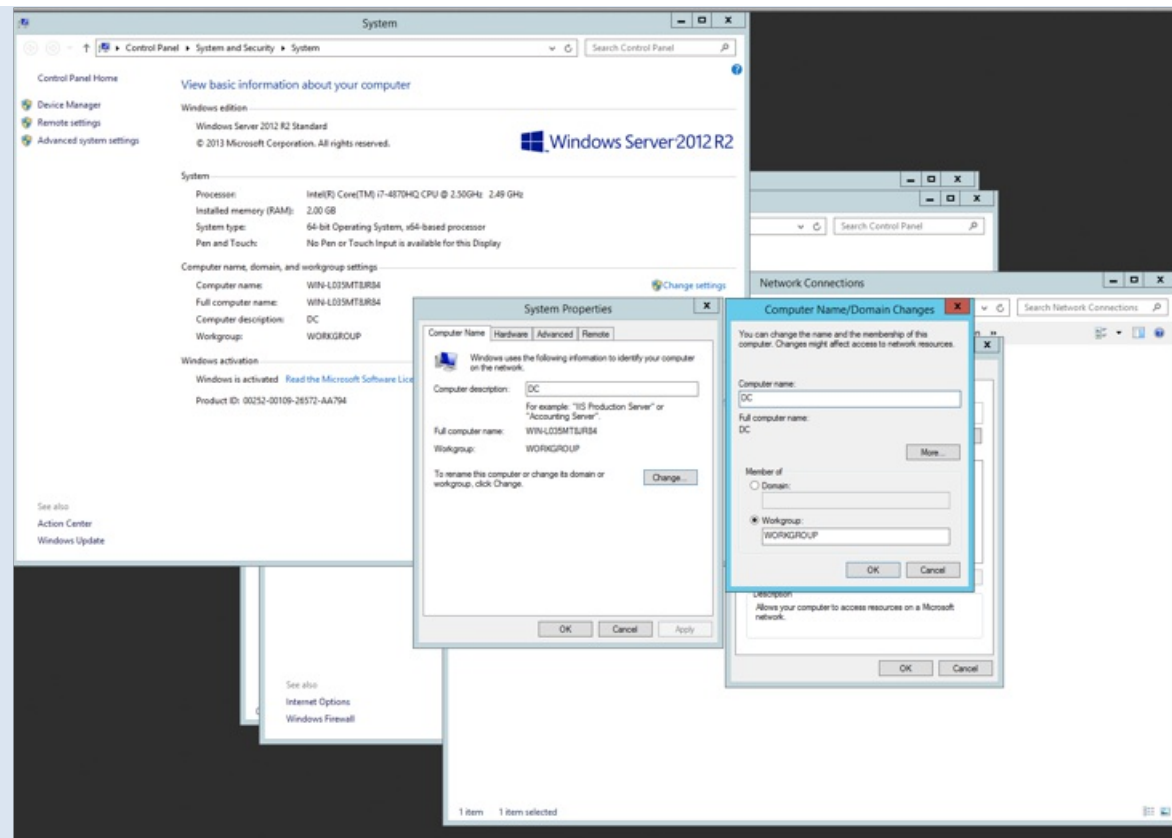
Also, make sure on the Windows 7/8 (client machines) to configure the DNS to point to the Domain Controller (172.16.151.200). Now you can test it by pinging the Domain Controller from any of the clients.



Step 2: Modifying the Names of the Hosts

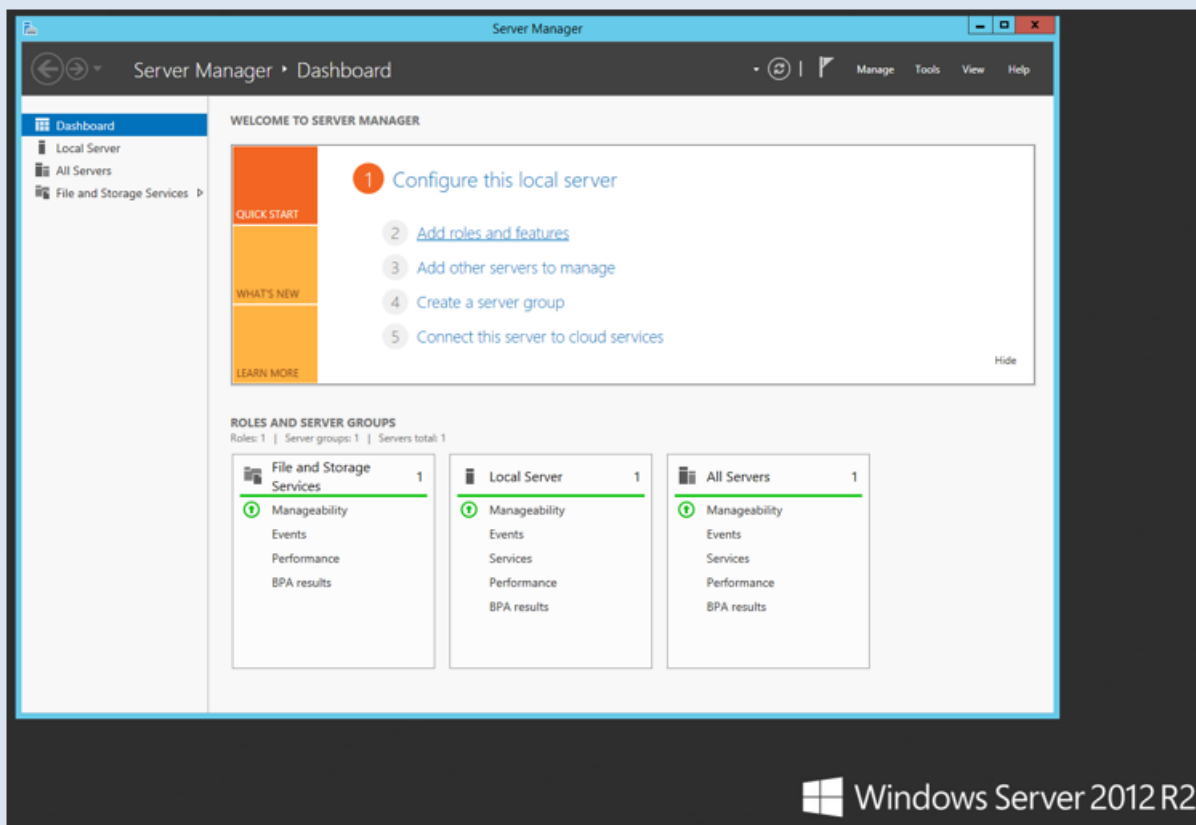
Next, I change the names of the computer for ease. For example, I modified the computer name of the Windows 2012 R2 Domain Controller to DC. I recommend doing this for all of your hosts.

You can change the host name in Control Panel -> System and Security -> System -> Change Setting

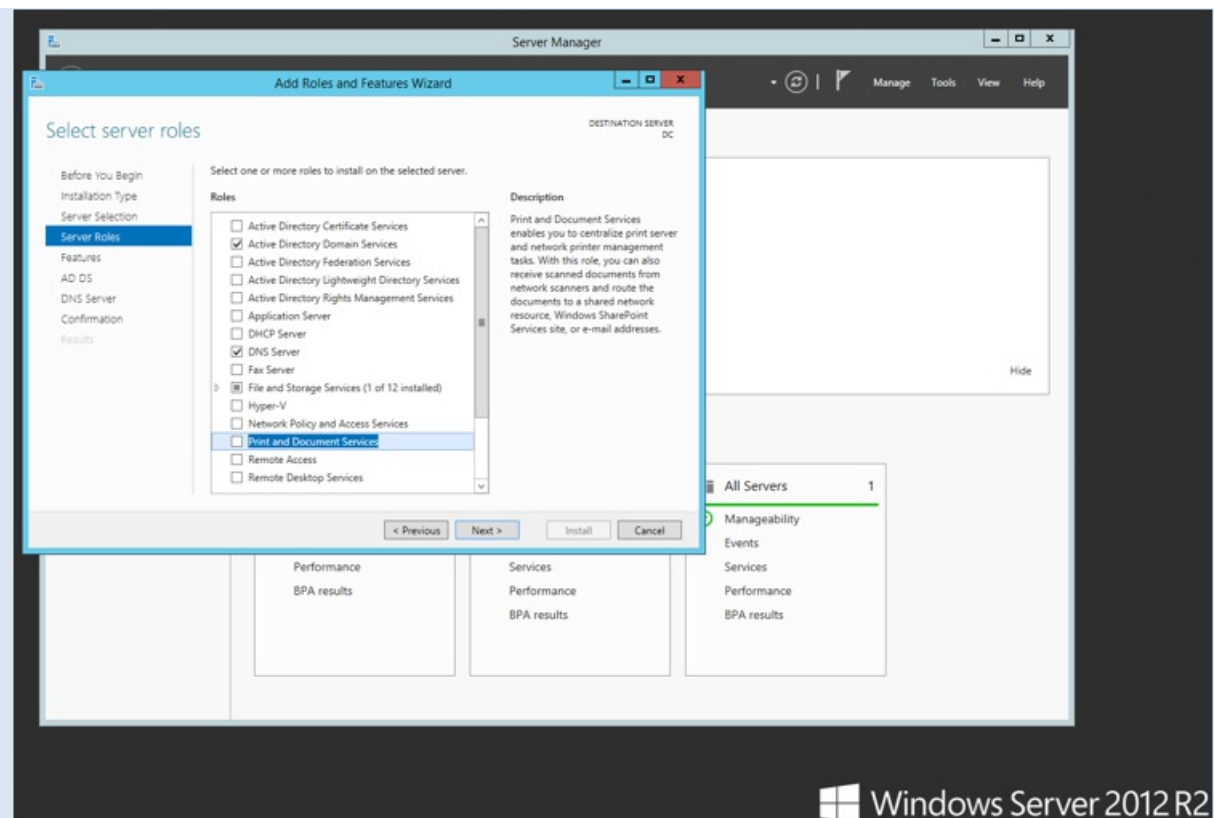


Step 3: Installing the Domain Controller and DNS services

Next, we need to install DNS and Domain Controller services on our Windows 2012 R2 hosts. To do this, when you logged into your Windows server, you should see the server manager page. Click on Add roles and Features and checking both Active Directory Domain Services and DNS Server.

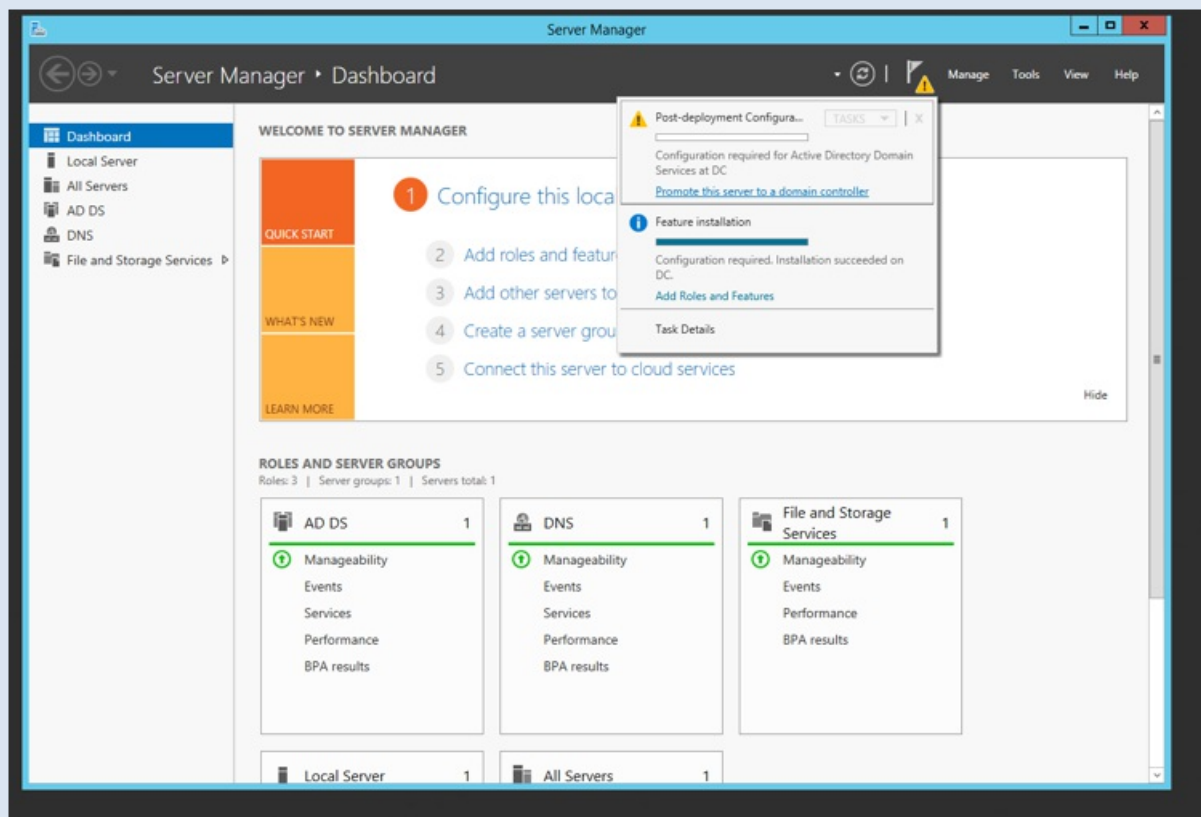


Windows Server 2012 R2

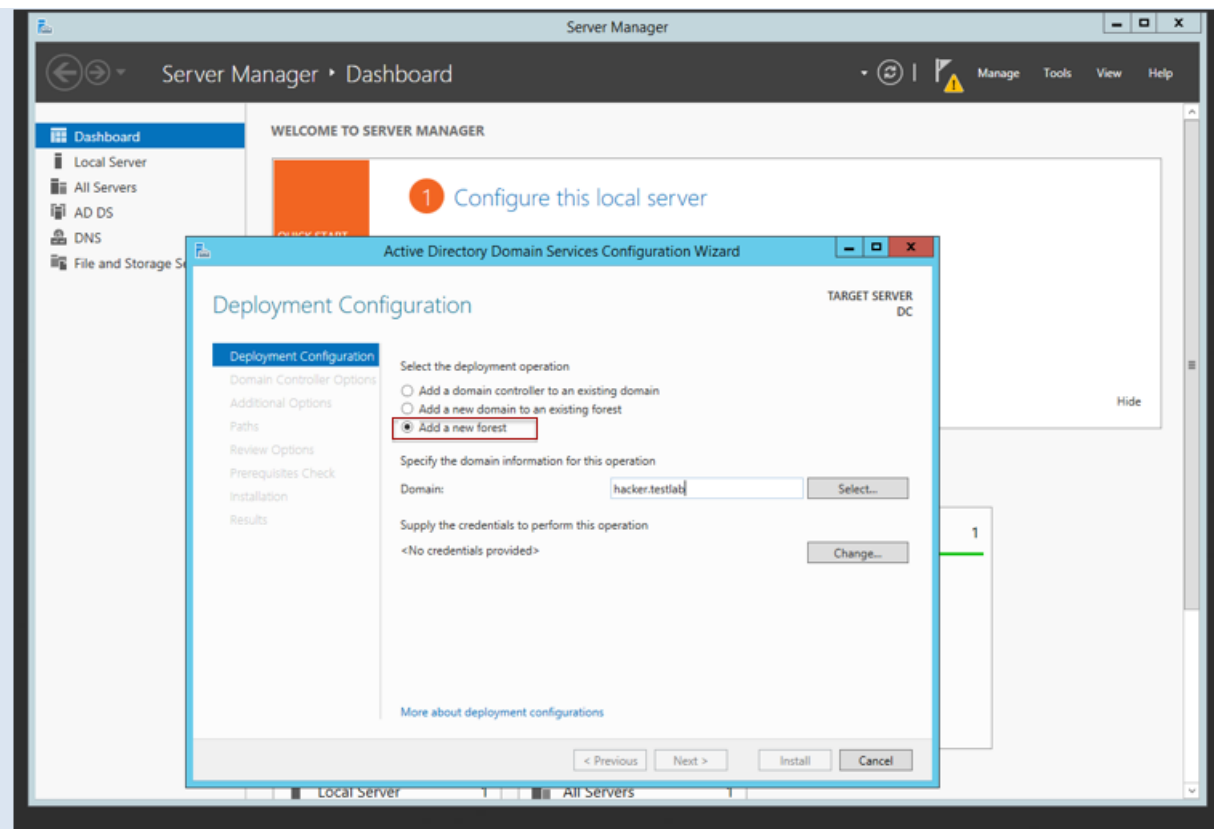


Step 4: Promoting the server

Next, we need to promote this server to a Domain Controller. In the upper right-hand corner, you should see an alert triangle. Click on it and click on Promote this server to a domain controller.

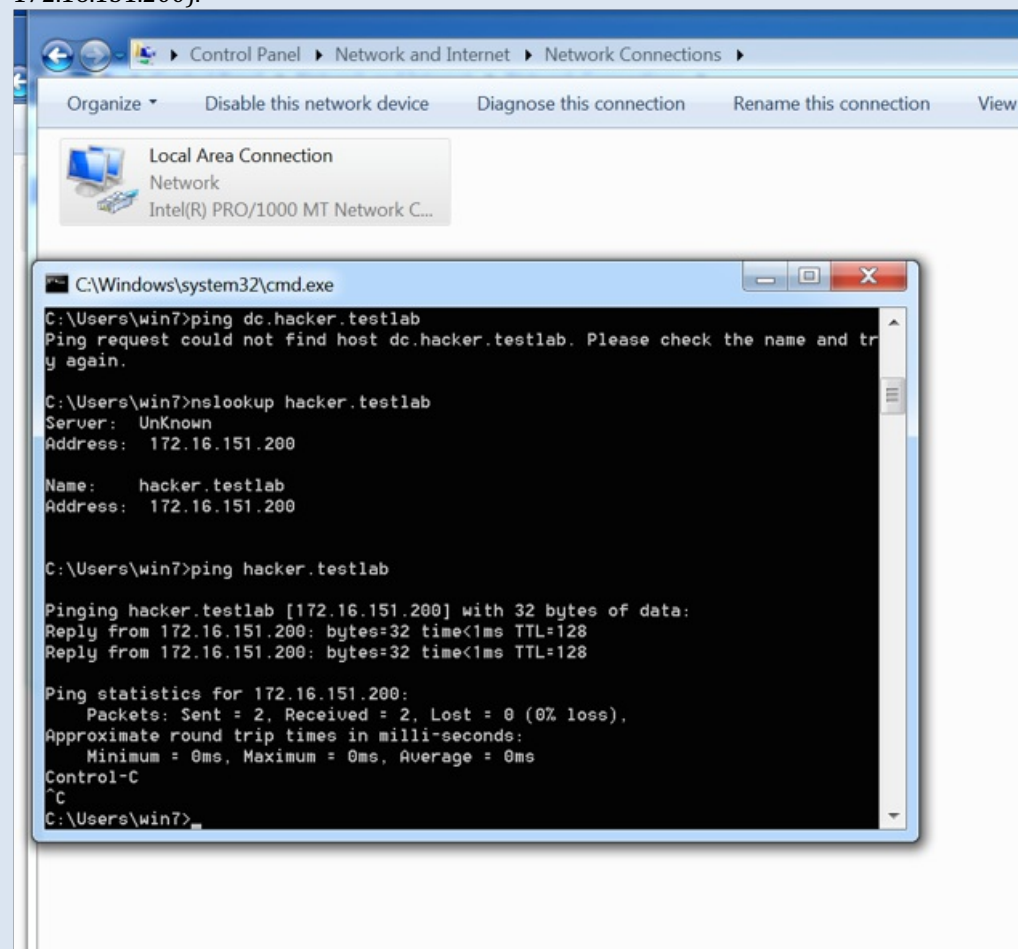


Next we click "Add a new Forest" and specify our domain. In this case, we are going with hacker.testlab:



Step 5: Registering our Clients to the Domain (Windows 7/8)

On the client machine, we need to first make sure you can ping hacker.testlab (if you can't, make sure your DNS is configured to use 172.16.151.200).

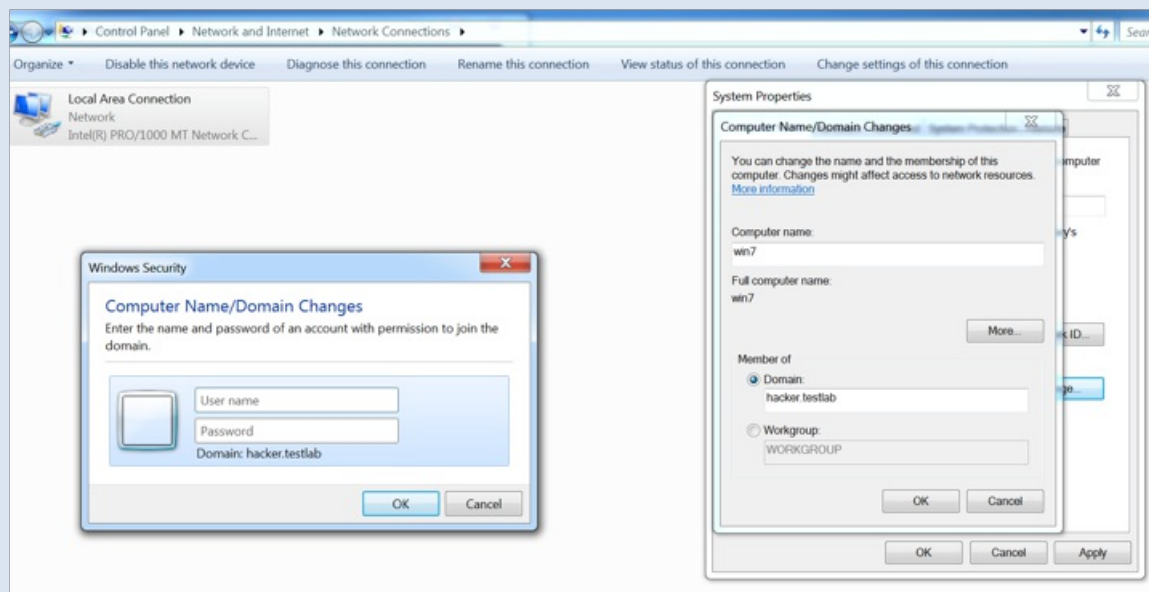


Next we are going to register the host onto the Domain.

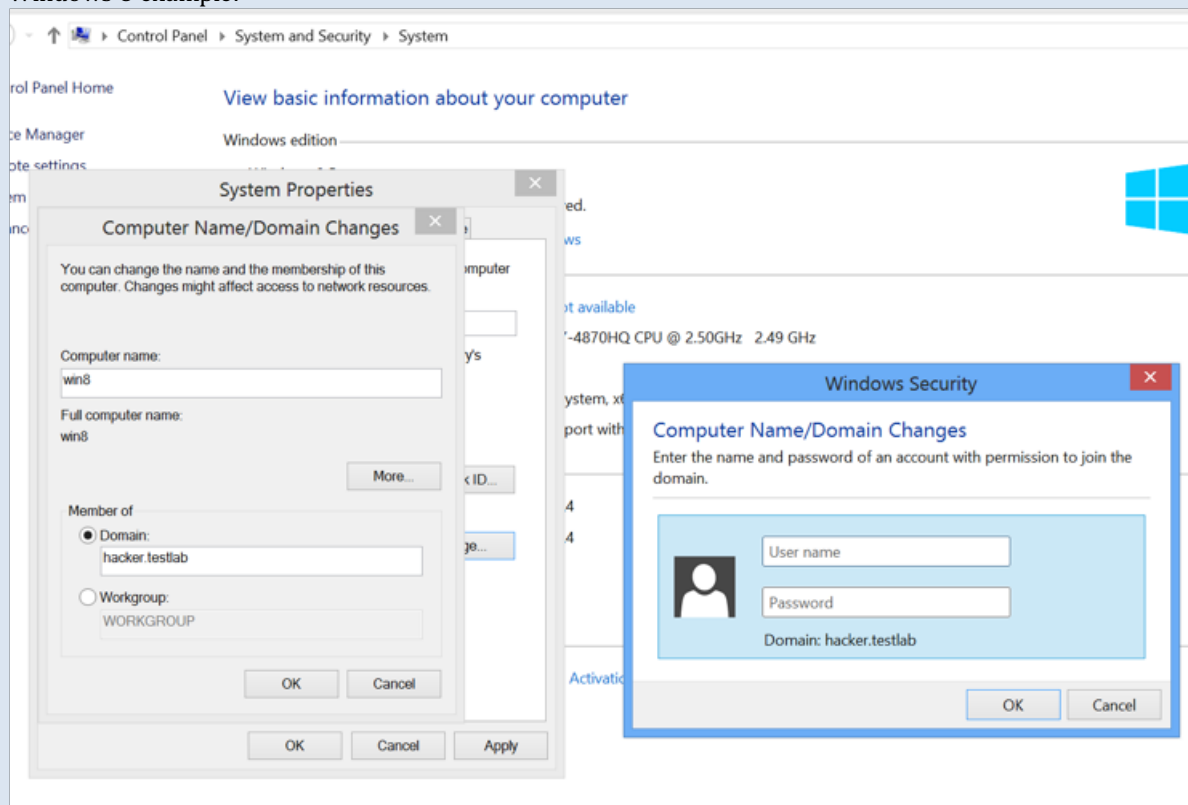
On your Windows Clients:

Control Panel -> Systems and Security -> System -> Change Settings (For Computer Name)

Change the name to win7 (for Windows 7) and the domain to hacker.testlab. If everything works out, you should get a prompt for the domain admin account to register the computer.



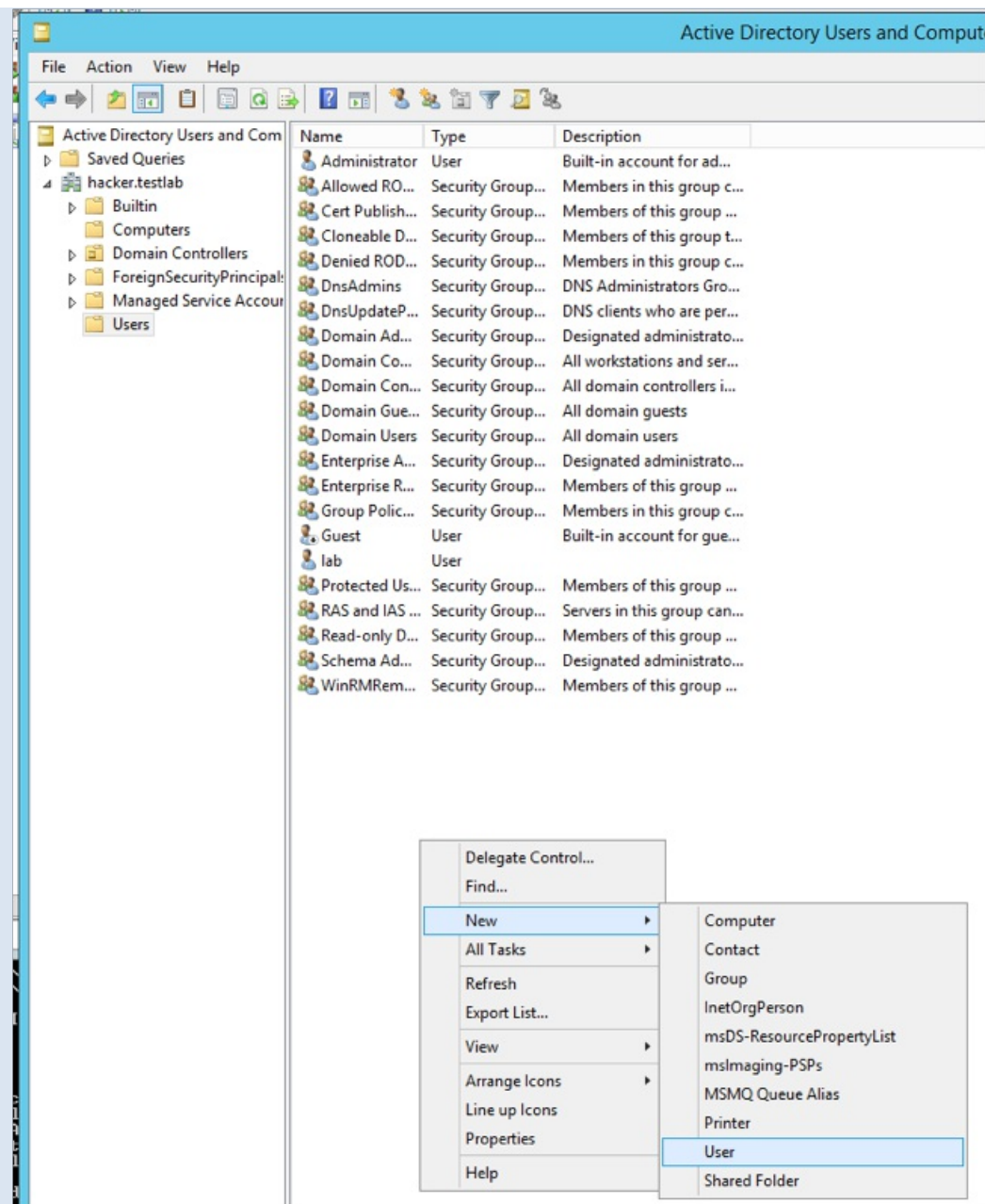
Windows 8 example:



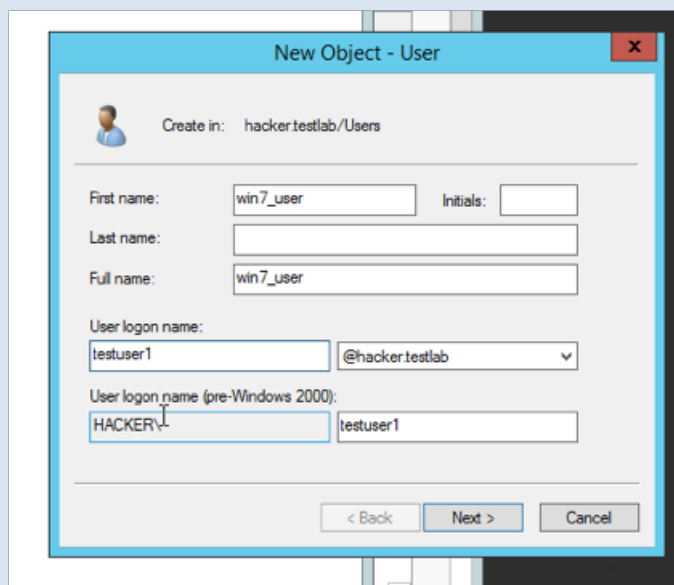
And your host is joined to the domain.

Step 6: Creating Active Directory Users

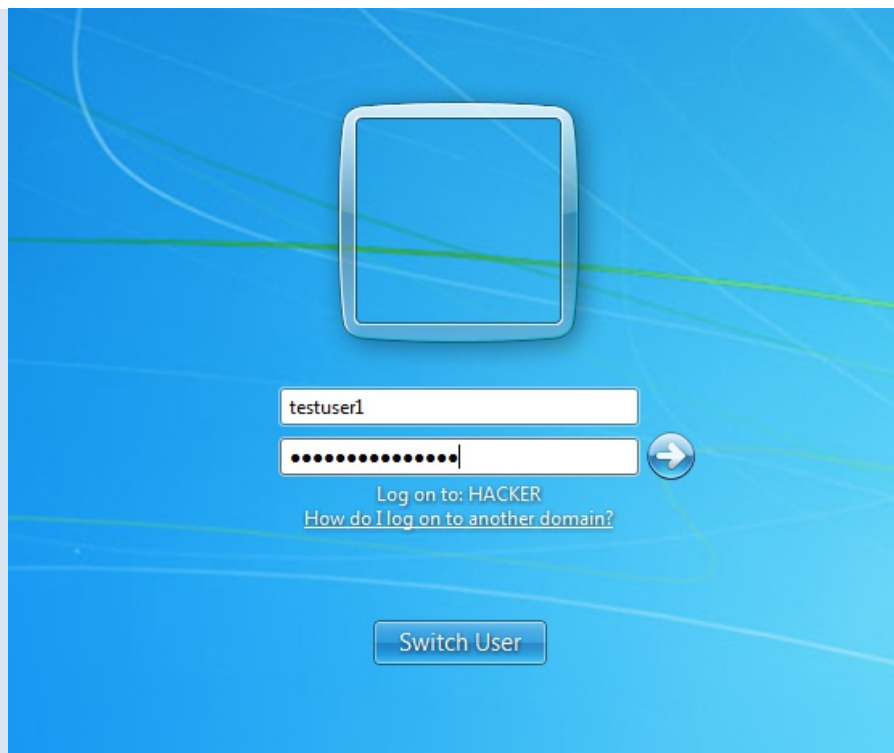
After you do this both for the Windows 7/8 servers, you can create users on your domain controller. Go to Active Directory Users and Computers on your Windows 2012 server, go to Users and right click to add a New User.



We are going to create a testuser1 account.



After we create a user, we can go back to our Windows 7 host and log back into the domain.



And that's it. You can repeat the steps for Windows 8 and you should now have two systems connected to our Domain Controller!