

Lab 3-5 Installing Another Domain Controller

Check off

	Installed Active Directory Services
	Set up a new Forest
	Answered questions
	Did not cry or tear your hair out over installation of directory services

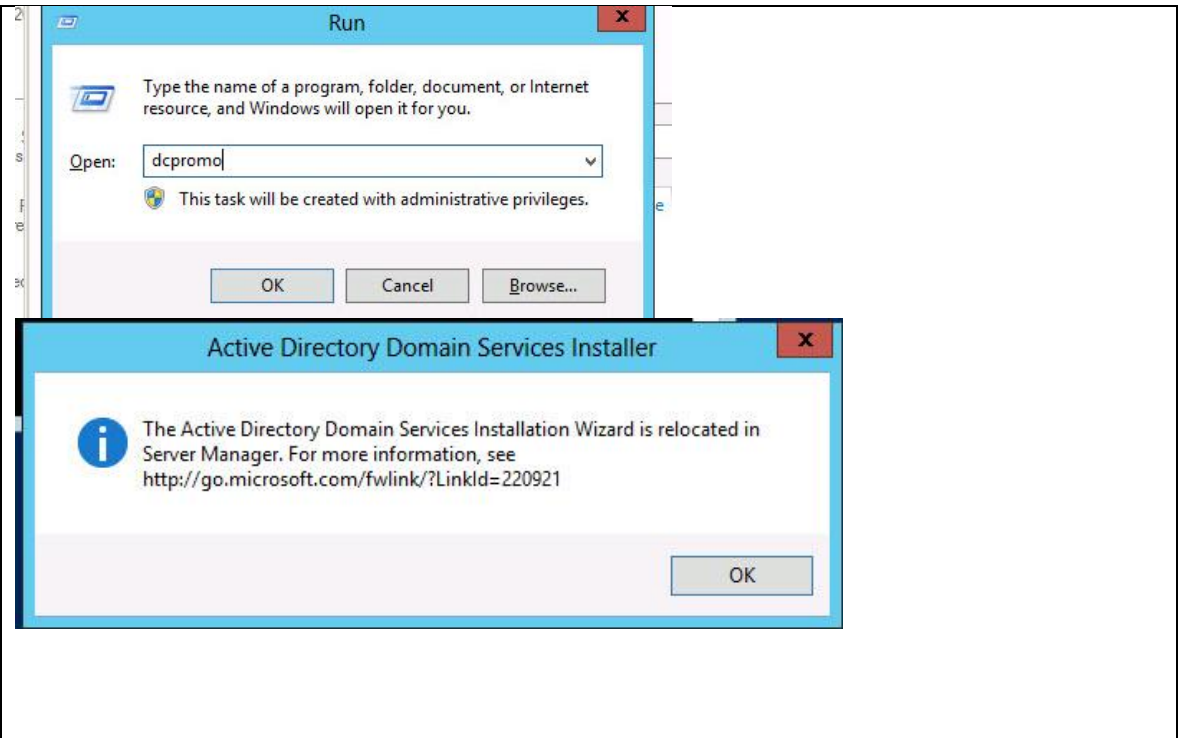
Before you start:

1. Make sure you have one of your domain controllers turned on. You can't have both ADDC1 and ADDC2 and Server 2012 on at the same time.

Directions

1. Log into your 2012 server as an administrator. Be sure ADDC1 is on and working and has Active Directory installed.
2. Go into the properties of your network card and configure IP v4
3. Set the Primary DNS as the IP address of ADDC1.
4. Set the secondary DNS as 127.0.0.1 (that is the "local" or "home" address that refers to the NIC being used on that computer).
5. Write down that IP address here:

6. Under Customize this Server select **Add Roles**
7. Select **Active Directory Domain Services**
8. It will tell you that you have to add the .NET framework again, so say **Add Required Features**.
9. Select install.
10. When it's done, open the RUN box and type the command to promote the server to a domain controller.
11. Things have moved in Windows Server 2012! Go to Server Manager.



1. Go to Server Manager
2. Click “**add roles and features**”. If it tells you that it can’t start because it is completing a task, just wait a bit and try again.

1 Configure this local server

2 Add roles and features

3. Skip past the first page. On page two you want to select role-based or feature-based installation.
4. Notice when you click next that you can actually create a role on a virtual drive, or another server. Virtualization is more than just setting up servers to learn from. Companies are using them now for production.
5. Next

Role-based or feature-based installation

Configure a single server by adding roles, role services, and features.

Remote Desktop Services Installation

Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual desktop or session-based desktop deployment.

6. Select your server.
7. Click next

Server Pool

Filter:

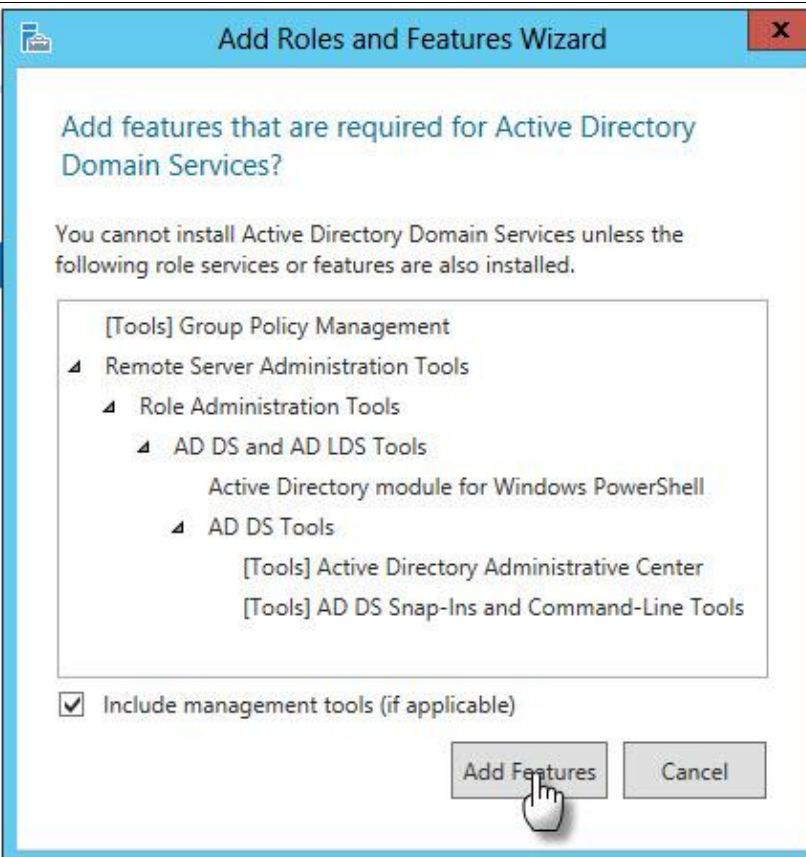
Name	IP Address	Operating System
WIN-1C562GRG3ME	192.168.1.211	Microsoft Windows Server 2012 Standard

Roles

- Active Directory Certificate Services
- Active Directory Domain Services**
- Active Directory Federation Services
- Active Directory Lightweight Directory Services
- Active Directory Rights Management Services

8. Select Active Directory Domain Services.
9. These services allow you to add users, groups, organize users into groups, add computers, organize users, groups and computers into organizational units.
10. Click next

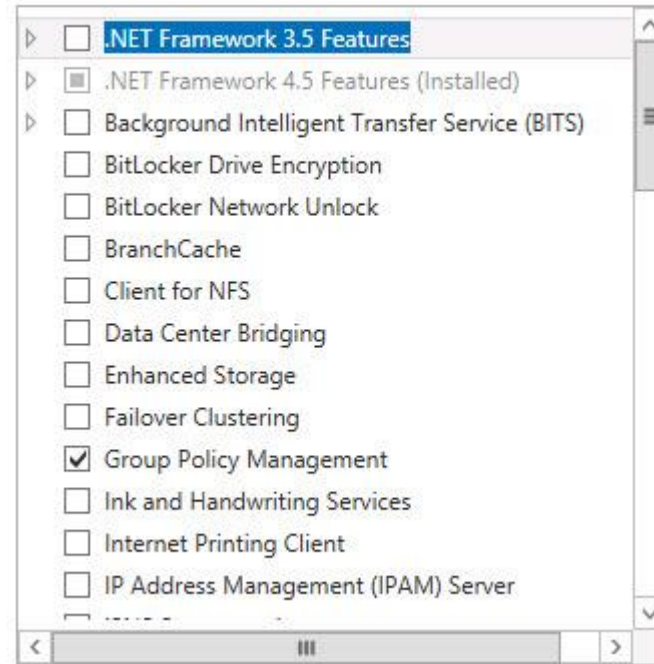
11. It's going to show you what features will be installed as you add Active Directory.
12. Active directory is a directory service to control the things I mentioned above.
13. Be sure "Include management tools" is selected and add features.



14. Scroll through the list. Which features are going to be installed?

15. Click next

Features



16. You will see a list of things that apply to your domain services. Read and answer.

17. How many domain controllers should you have at a minimum?

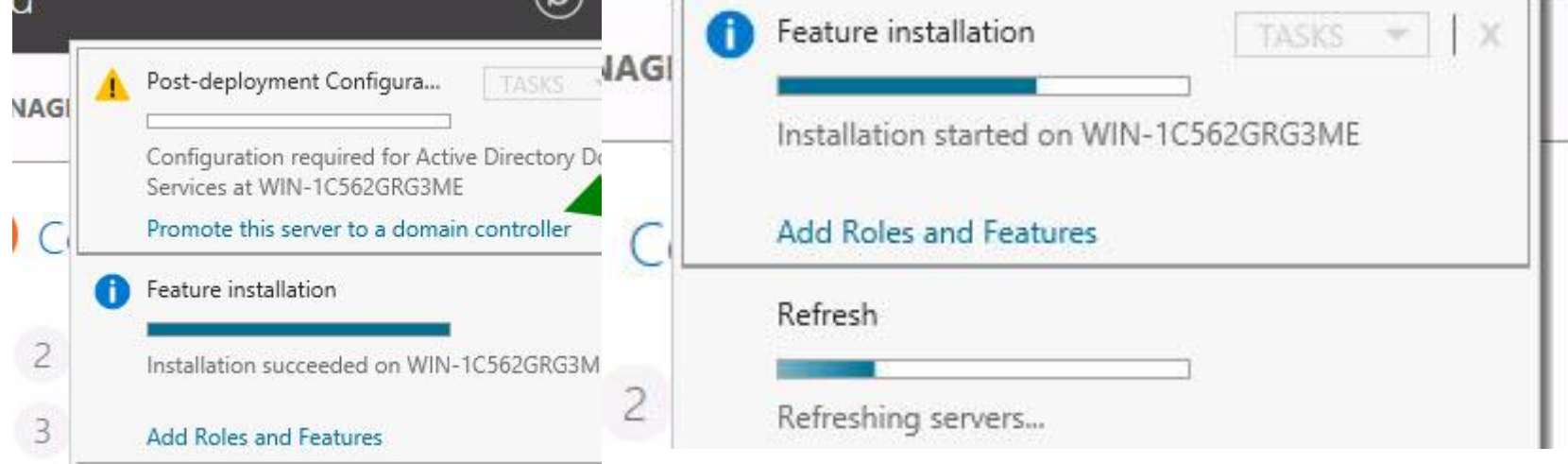
18. AD DS requires a _____ server to be installed.

19. Look up DFS, what is it?

20. What parts of DFS will be installed?

Go ahead and tell it to restart your server when finished.

21. You can close the wizard (couldn't in other versions) and if you want to see how it's coming along, click on the flag to see what's going on.
22. Mine is about 2/3 done in this picture.
23. Keep an eye on the flag. When it has a yellow warning sign on it, click and you should see:



24. Restart your server and be sure to log into your 2012 server as your administrator in the domain you created on AD DC1. To be extra sure, you can make an administrative account so it's easy to know you're in the right one.
25. Go into AD DC1
26. Open Active Directory Users and Computers.
27. Create a new user and make you a member of the domain admins and Enterprise admins.
28. See over there, I created me and made sure I was a member of Enterprise Admins.
29. Go over to server 2012 and log in to THAT account.



30. Click Promote this server to a domain controller.
31. First be sure your IP address is static.
32. Click promote this server to a domain controller.
33. When the program restarts you will see an AD list in the server manager.



34. You need to finish the task of making this a domain controller.
35. Click add a new domain to a new forest (a)
36. Name your new root domain. (B)
37. Click next

Note: It's normal for it to take a bit on each screen before you can click.

38. Set the Forest Functional Level to Server 2008 R2? Why? Because you are going to possibly have some Server 2008 R2 servers in your network. If you do not you can raise the Forest Functional later.
39. Give it a password as shown.
40. Click next.

Deployment Configuration

spc

Deployment Configuration

Domain Controller Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

Select the deployment operation

- Add a domain controller to an existing domain
- Add a new domain to an existing forest
- Add a new forest

Specify the domain information for this operation

Root domain name:

snippy.com

Select functional level of the new forest and root domain

Forest functional level:

Windows Server 2008 R2

Domain functional level:

Windows Server 2003

Windows Server 2008

Specify domain controller capabilities

- Domain Name System (DNS) server
- Global Catalog (GC)
- Read only domain controller (RODC)

Windows Server 2008 R2

Windows Server 2012

Type the Directory Services Restore Mode (DSRM) password

Password:


* P@ssword

Confirm password:

*

41. You may get a delegation for this DNS server cannot be created....don't worry about that for now. Just click next.

DNS Options

 A delegation for this DNS server cannot be created because the auth

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

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Results

Specify DNS delegation options

Create DNS delegation

42. The NetBIOS name will be entered. You don't need to change that. NetBIOS names are only used if you have Windows ME or 9x on your network, which you don't.

Additional Options

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

Verify the NetBIOS name assigned to the domain and change it if necessary

The NetBIOS domain name:

SNIPPY

spi

43. Click next on the additional options page.

44. Select OK or Next when it asks you where to put SYSVOL , etc.

45. Sometimes you'll put your Database Folder, Log files folder, and SYSVOL folder on a different disk...in fact it's a really good idea to do that. However we'll leave it for now.

46. SYSVOL folder will store your scripts, group policies, etc. that are loaded to computers as they log into your domain.

Specify the location of the AD DS database, log files, and SYSVOL

Database folder:

C:\Windows\NTDS

...

Log files folder:

C:\Windows\NTDS

...

SYSVOL folder:

C:\Windows\SYSVOL

...

47. Now it will do a Pre-requisites check. This is actually very cool because Server 2008 Active Directory didn't do this and sometimes you would think it's all working and find out it isn't and then you can't figure out why! Hopefully what you will see looks like the one to the right.

- a. The first one tells me about cryptography on Windows 2012. That's because I chose a Server 2008 R2 Forest Functional Level. When you choose a lower level some of the new features will be disabled because the older NOS can't do the same stuff.
- b. The second one tells me it can't find another DNS server to be a "parent" server for it. That's okay, we'll let this one be the parent server.
- c. Then it should say "Prerequisites Check Completed."
- d. Click install!

48. Let it install!

49. Answer the questions below.

50. When your server FINALLY restarts (it is normal for it to take a LONG time) you will be shown the regular login screen. You now have a domain controller for a DIFFERENT forest so you can't log into the domain until you set up a trust. We will do that later.

51. Click on the arrow on the left for a different user.

52. Select "Other User" and type

- a. Administrator
- b. P@ssword

53. Let it logon in!

Rerun prerequisites check

^ View results

"Allow cryptography algorithms compatible with Windows NT 4.0" that prevents weaker cryptography algorithms when establishing security channel sessions.

For more information about this setting, see Knowledge Base article 942564 (<http://go.microsoft.com/fwlink/?LinkId=104751>).

⚠ A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain "snippy.com". Otherwise, no action is required.

i Prerequisites Check Completed

⚠ If you click Install, the server automatically reboots at the end of the promotion operation.

[More about prerequisites](#)



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SLAPHAPPY\teechur

Password



Questions

Go online and look up the following information:

1. What is "Active Directory"?

2. What is the Forest Functional Level and why did you choose it? (Hint—the answer isn't "Because you told me to.")	
3. What does it mean when the pre-requisite check tells you that it can't find a delegation for the DNS server?	
4. What kind of "objects" can you add to Active Directory?	
5. What is a Domain?	
6. What is a Forest?	
7. Can you have a forest within a domain?	
8. Can you have multiple domains within a forest?	
9. What's a user?	
10. What is a group?	
11. What is an organizational unit?	
12. What is a computer in the context of Active Directory?	
13. How do you make a computer a part of a domain?	
14. What is a Domain Server in the context of Active Directory?	

15. Once AD is fully installed, (oh yay...mine is restarting) you will see three or four new programs under Administrative Programs. List them: