# Week 9 Windows Server Activities - Network Services

Activities

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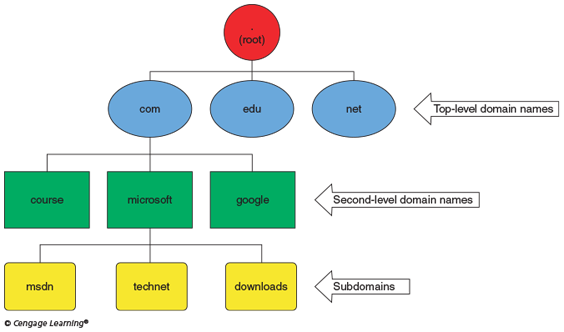
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**How to Create Screenshots:** Please use the Windows Snip and Sketch Tool or the Snipping Tool. Paste a screenshot of just the program you are working on. If you are snipping a virtual machine, make sure your focus is outside the virtual machine before you snip.

1. Press and hold down the **Windows key** & **Shift**, then type **S.** This brings up the on-screen snipping tool.
2. Click and Drag your mouse around whatever you want to snip.
3. Release the mouse button. This places the snip into the Windows Clipboard.
4. Go into Word or wherever you want to paste the snip. Hold down **CTRL**, then type **V** to paste the snip.

# Activity 9-1: Creating a Reverse Lookup Zone



Time Required: Approximately 10 minutes

Objective: Learn how to create a reverse lookup zone.

Description: If you plan to use a reverse lookup zone, create it before DNS forward lookup zone records are created. The reason for this is that when a DNS forward lookup zone record is created, either manually or through dynamic updating, an associated reverse lookup zone PTR record can be created automatically.

1. Start Server1 and log on as your administrator account.
2. Open Server Manager, if it is not open.
3. Click Tools and click **DNS**.
4. If necessary, in the left pane of DNS Manager Click the right-pointing arrow in front of your server’s name to expand the elements under it (if you don’t see the arrow, click the server’s name in the left pane first).
5. In the left pane, Right Click **Reverse Lookup Zones**, Click **New Zone**.
6. Click Next after the New Zone Wizard starts.
7. Notice the zone options that are available and then ensure that **Primary zone** is selected. Also, ensure the box is checked for Store the zone in Active Directory (available only if DNS server is a writeable domain controller). This last option enables the DNS server contents to be replicated to other DNS servers on the network.
8. Click Next. Configuring the zone type When you select the option to Store the zone in Active Directory (available only if DNS server is a writeable domain controller), this means that you are creating an Active Directory Integrated zone, so that the zone data is stored in Active Directory. The benefit is that zone data is replicated when Active Directory is replicated and such zones are afforded Active Directory security. Zone data is also replicated to all new domain controllers.
9. Click Next.
10. In the Active Directory Zone Replication Scope window, you can select how the DNS server is replicated through Active Directory. Make sure that To all DNS servers running on domain controllers in the domain: domainname is selected.
11. Click Next.
12. In the next window, you can select whether to create the reverse lookup zone for IPv4 or IPv6. For this activity leave IPv4 Reverse Lookup Zone selected.
13. Click Next.
14. Enter the network ID of the reverse lookup zone. **10.10.1** This is the first two or three octets that identify the network, depending on the subnet mask that you use.   
    This information is used to build the “in-addr.arpa” reverse lookup zone name. For example, if your zone network address is 192.168 then the in-addr.arpa reverse lookup zone is named 168.192.in-addr.arpa. The wizard automatically builds the in-addr.arpa name format when you enter the network address.
15. Click Next.
16. Configure the security of updates made through DHCP by making sure that Allow only secure dynamic updates (recommended for Active Directory) is selected.
17. Click Next.
18. Review the information you have entered.
19. **Insert a screenshot:**

Click or tap here to enter text.

1. Click Finish. You should see the new reverse lookup zone displayed in the right pane.
2. **Insert a screenshot:**

Click or tap here to enter text.

1. Leave DNS Manager open for the next activity.

# Activity 9-2: Manually Creating DNS Host Address A Resource Records

Time Required: Approximately 10 minutes

Objective: Create a Host Address A Resource Record.

Description: In this activity, you learn how to configure a Host Address A Resource Record in a forward lookup zone. We will put in a fake IP address and fake host name.

1. Start Server1 and log on as your administrator account.
2. Open DNS Manager, if it is not still open.
3. Double-click Forward Lookup Zones in the tree under the server’s name.
4. Double-click the domain name, MyDomain.local. Notice there is already a Host (A) record for your servers and Win10 in the right pane.
5. Click New Host (A or AAAA).
6. Enter the name of the host computer **Computer1** and its IP address **10.10.1.40** in the New Host dialog box.
7. Check the check box to Create associated pointer (PTR) record.
8. **Insert a screenshot:**

Click or tap here to enter text.

1. Check the box to Allow any authenticated user to update DNS records with the same owner name (for computers running Windows 8.1, Windows 10, or Windows Server 2019, for example, that can update in coordination with DHCP; this option also ensures security, because it associates an ACL with the record).
2. Click Add Host.
3. Click OK when you see the message box that your host record was successfully created.
4. Click Done.
5. **Insert a screenshot showing the entire MyDomain.local zone:**

Click or tap here to enter text.

1. Open a command prompt. Ping computer1.
2. There will not be a response, as the computer does not exist. You should that the computer has resolved to the DNS record we created earlier.
3. Insert a screenshot.

Click or tap here to enter text.

1. Leave DNS Manager open for the next activity.

# Activity 9-3: Configuring DNS Forwarders

Time Required: 5 minutes

Description: Setup DNS forwarders in AD DNS.

1. Start Server1 and log on as your administrator account.
2. Open DNS Manager.
3. Right-click the server name Server1 under DNS in the tree in the left pane. Click Properties.
4. To configure a forwarder in the server Properties dialog box, click the Forwarders tab, click the Edit button, and enter the IP address of the forwarder in the box titled, IP addresses of forwarding servers.  
   **NOTE:** Use 8.8.8.8 & 8.8.4.4
5. **Insert a screenshot:**

Click or tap here to enter text.

1. When you are finished entering the addresses, click OK in the Edit Forwarders dialog box.
2. Close DNS Manager.
3. Test internet access on each VM. **Does internet access work with the new DNS forwarders?** (If not, troubleshoot why it doesn’t work.)

Click or tap here to enter text.

# Activity 9-4: Creating Static DNS Entries and Aliasing

Time Required: 10 minutes

Objective: Create static A, CNAME, and PTR records.

Required Tools and Equipment: Server1

Description: You want to experiment with creating static DNS records.

1. Log on to Server1 as your administrator account, if newebserver1cessary.
2. Open the DNS Manager console, if necessary, and click to expand Forward Lookup Zones. Right-click MyDomain.local and click **New Host (A or AAAA)**.
3. In the New Host dialog box, type **webserver1** in the Name text box and **10.10.1.10** in the IP address text box. Click to select **Create associated pointer (PTR) record**. Click the **Add Host** button. Click OK and then Done.
4. **Insert a screenshot:**

Click or tap here to enter text.

1. Open a command prompt window, type **nslookup webserver1.MyDomain.local**, and press Enter. The name should be resolved to 10.10.1.10.
2. **Insert a screenshot:**

Click or tap here to enter text.

1. Type **ping 10.10.1.10** and press Enter. You should see the FQDN.
2. **Insert a screenshot:**

Click or tap here to enter text.

1. In the DNS Manager console, right-click **MyDomain.local** and click **New Alias (CNAME)**. In the New Resource Record dialog box, type **www** in the **Alias name** text box. In the “Fully qualified domain name (FQDN) for target host” text box, type **webserver1.MyDomain.local** Click OK.
2. **Insert a screenshot:**

Click or tap here to enter text.

1. At the command prompt, type **nslookup www.MyDomain.local** and press Enter. The command returns the address webserver1.MyDomain.local and lists the alias name www.
2. **Insert a screenshot:**

Click or tap here to enter text.

## Assignment Submission

Attach this completed file to the assignment in Blackboard.