**Introduction**  
For this lab you will need three servers and one or more clients  
w2k8a01, w2k8b02,w2k8c03, w7a   
All machines are on the same LAN segment  
  
w2k8a01 is a DC  
b and c are member servers and will host DHCP  
  
**IP Settings**  
Be sure all IP settings are correct  
  
w2k8a01   
172.16.150.20/24  
DNS 172.16.150.20  
  
w2k8b02  
172.16.150.40/24  
DNS 172.16.150.20  
  
w2k8c03  
172.16.150.60/24  
DNS 172.16.150.20

W7a  
you can use a static addr to verify connectivity, but remove it before joining the domain  
  
**Configure DC**  
Configure kim.com on w2k8a01  
Please **do not** install DHCP on this machine

**Join w2k8b02 and wek8c03 to kim.com**

Verify you can log onto the domain from these machines

**Install DHCP and Configure DHCP Scope on w2k8b02**From Server Manager install DHCP Server Role on w2k8b02.   
Click the checkbox next to DHCP Server, Next  
verify the bindings is .40, Next  
on DNS Server Settings, verify kim.com in Parent Domain  
verify that Preferred DNS is .20, Validate, Next, Next,   
  
In Add Scope popup, click Add and enter the following the textboxes  
Scope Name:kimdotcom  
Starting IP Address:172.16.150.1  
Ending IP Address: 172.16.150.100  
Subnet Mask:What is your mask?  
OK  
Next, Next  
on DCHP IPv6 Stateless Mode, click Disable IPv6 …  
Install  
when Install is finished, close Server Manager  
  
**Configure Exclusions**In this step, you will configure the DHCP server so it will not allocate the addresses for 172.16.150.20, .40, and .60

On w2k8b02,   
go to Administrative Tools, DHCP and click the plus next to the server, w2k8b02  
click the plus next to IPv4  
click the plus next to Scope[172…] and right click Address Pool and click New Exclusion Range…  
in the Start IP address textbox, type 172.16.150.20 and click Add  
again, in the Start IP address textbox, type 172.16.150.40 and click Add,   
and one more time for .60  
Close  
you will see a red x next to these addresses to let you know DHCP will not allocate them  
Close the DHCP console

**Verify that DHCP is Authorized in AD**on b  
In DHCP Console tree right click w2k8b02.kim.com, Properties, and verify Unauthorize is shown

**Test your DHCP Configuration**  
For each client,   
be sure the adapter is configured to obtain IP configuration  
go to Control Panel, Network and Sharing Center and reconfigure the NICs to Obtain an IP address automatically  
  
execute ipconfig on the clients; you will see a valid 172.16.150.x address  
otherwise, execute ipconfig/release followed by ipconfig/renew  
execute ipconfig again to check for the valid addresses  
otherwise, check all your settings  
  
when you have a valid address, ping all interfaces on the 172.16.150.0 network, and be sure they all work

**Join all Clients to kim.com**

Verify you can log onto the domain from these machines

**Configure DHCP Split Scope**  
On w2k8b02,   
go to Administrative Tool, DHCP  
click the plus next to w2k8b02, click the plus next to IPv4  
right click Scope[…], Advanced, Split Scope, Next  
  
  
on Welcome to the New Scope Wizard page, click Next  
on Scope Name page, type net1010150 in the Name textbox, Next  
on the IP Address Range page, type the following the textboxes  
Start IP address: 10.10.150.1  
End IP address: 10.10.150.100  
Length: 24  
Next  
on the Add Exclusions page  
From Figure 2, notice that there is only one address on network 10.10.150.0, the address of w2kr10, that you do not want the DHCP server to lease, but let us assume other servers will be added later; as a result, you will configure a range of addresses. Enter the following in,  
Start IP address: 10.10.150.1  
End IP address: 10.10.150.30  
Add, Next, Next  
on the Configure DHCP Options, leave the Yes, I want to configure these options now  
on the Router(Default Gateway) page, IP address: textbox, type 10.10.150.10, Add, Next, Next, Next, Next, Finish