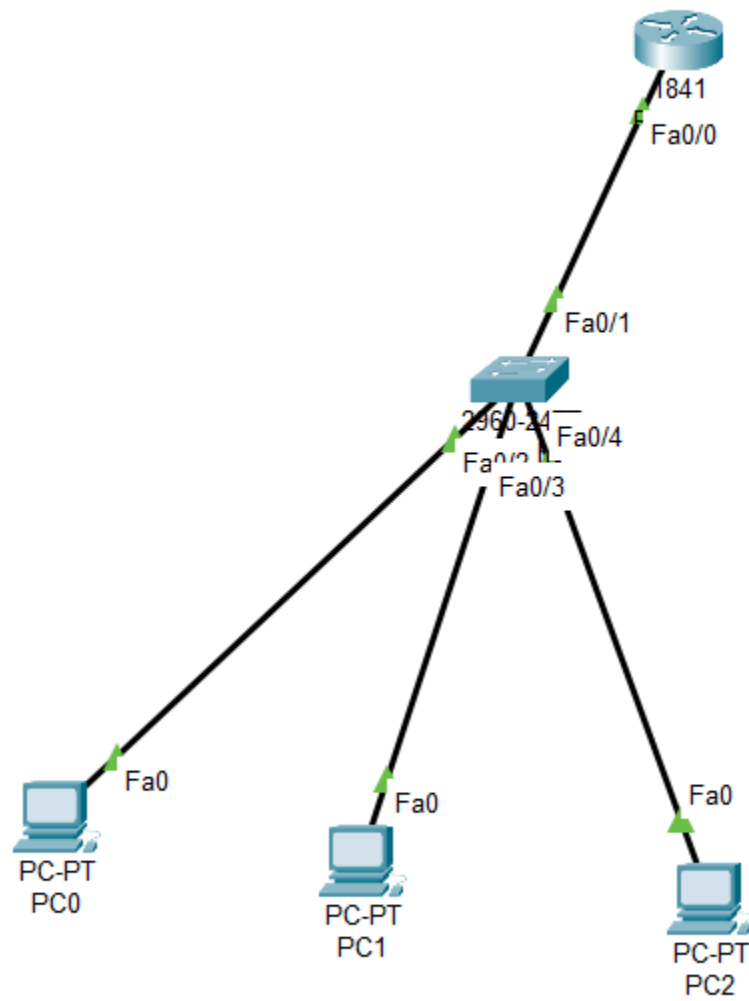



## DHCP Topology



## Building DHCP

 Router0

Physical

Config

**CLI**

Attributes

IOS Command Line Interface

```
Router>enable
Router#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname R1
R1(config)#interface fa0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shutdown

R1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R1(config-if)#exit
R1(config)#ip dhcp ?
    excluded-address  Prevent DHCP from assigning certain addresses
    pool              Configure DHCP address pools
    relay             DHCP relay agent parameters
R1(config)#ip dhcp pool
% Incomplete command.
R1(config)#ip dhcp pool ?
    WORD Pool name
R1(config)#ip dhcp pool nms-pool
R1(dhcp-config)#network 192.168.1.0 255.255.255.0
R1(dhcp-config)#default-router 192.168.1.1
R1(dhcp-config)#dns
R1(dhcp-config)#dns-server 8.8.8.8
R1(dhcp-config)#lease ?
% Unrecognized command
R1(dhcp-config)#exit
R1(config)#ip dhcp excluded-address 192.168.1.1 192.168.1.3
R1(config)#do show ip dhcp binding
IP address      Client-ID/      Lease expiration      Type
                Hardware address
192.168.1.4      0002.1636.21B5   --                    Automatic
192.168.1.5      0001.42D7.46CA   --                    Automatic
192.168.1.6      00D0.D3C0.E7D0   --                    Automatic
R1(config)#
```

☐ Top

## Show run command

[illegible]

## PC DHCP automatic configuration outputs

PC0

Physical Config **Desktop** Programming Attributes

**IP Configuration** X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IPv4 Address 192.168.1.4

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 8.8.8.8

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::202:16FF:FE36:21B5

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

PC1

Physical

Config

Desktop

Programming

Attributes

IP Configuration

X

Interface

FastEthernet0

IP Configuration

☒ DHCP

☐ Static

IPv4 Address

192.168.1.5

Subnet Mask

255.255.255.0

Default Gateway

192.168.1.1

DNS Server

8.8.8.8

IPv6 Configuration

☐ Automatic

☒ Static

IPv6 Address

/

Link Local Address

FE80::201:42FF:FED7:46CA

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

Username

Password

☐ Top

PC2

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP
 ☐ Static

IPv4 Address 192.168.1.6

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 8.8.8.8

IPv6 Configuration

☐ Automatic
 ☒ Static

IPv6 Address /

Link Local Address FE80::2D0:D3FF:FE00:E7D0

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

## DHCP Binding

Enter configuration commands, one per line. End with Ctrl/Z.

```
R1(config)#do show ip dhcp binding
```

IP address	Client-ID/ Hardware address	Lease expiration	Type
192.168.1.5	0002.1636.21B5	--	Automatic
192.168.1.4	0001.42D7.46CA	--	Automatic
192.168.1.6	00D0.D3C0.E7D0	--	Automatic

```
R1(config)#
```

## Show interface brief

```
R1(config)#do show ip int brief
```

Interface	IP-Address	OK?	Method	Status	Protocol
FastEthernet0/0	192.168.1.1	YES	manual	up	up
FastEthernet0/1	unassigned	YES	unset	administratively down	down
Vlan1	unassigned	YES	unset	administratively down	down

```
R1(config)#
```