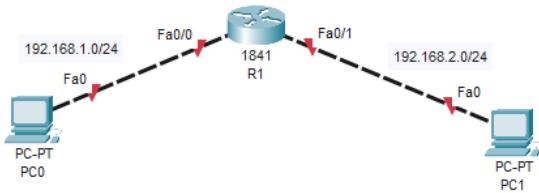




## 组网及说明



本案例采用思科模拟器的路由器作为DHCP服务器给PC分配IP地址，实现PC的IP地址自动获取和PC之间相互PING通。

## 配置步骤

- 1、按照网络拓扑图配置IP地址。
- 2、在R1配置DHCP。

## 配置关键点

R1:

Router>ena

Router#conf t

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

Router(config)#hos R1

R1(config)#int f 0/0

R1(config-if)#ip address 192.168.1.1 255.255.255.0

R1(config-if)#no shutdown

R1(config-if)#exit

R1(config)#int f 0/1

R1(config-if)#ip address 192.168.2.1 255.255.255.0

R1(config-if)#no shutdown

R1(config-if)#exit

R1(config)#ip dhcp pool vlan10

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-server 8.8.8.8

R1(dhcp-config)#exit

R1(config)#ip dhcp pool vlan20

R1(dhcp-config)#network 192.168.2.0 255.255.255.0

R1(dhcp-config)#default-router 192.168.2.1

R1(dhcp-config)#dns-server 8.8.8.8

R1(dhcp-config)#exit

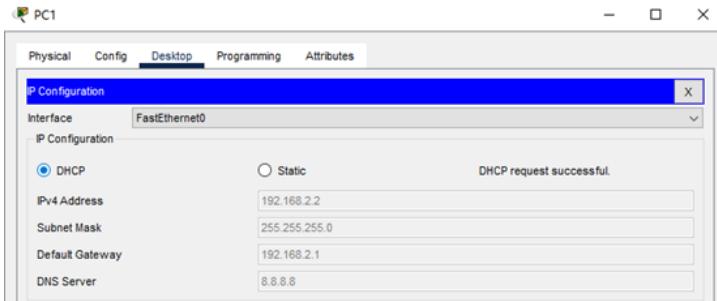
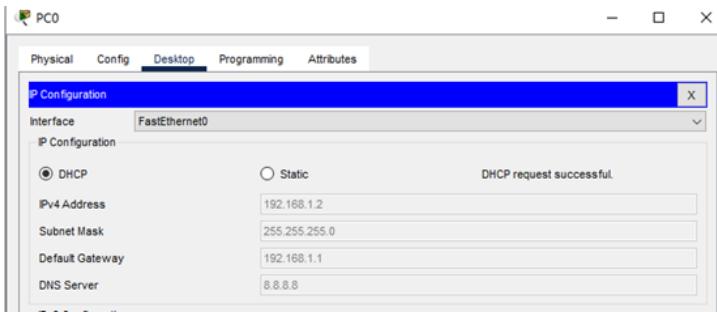
R1(config)#do wr

Building configuration...

[OK]

R1(config)#

PC的IP设置为DHCP自动获取，能获取到IP地址。



PC之间能相互PING通。

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 192.168.2.2

Pinging 192.168.2.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127
Reply from 192.168.2.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.2.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:>|
```

```
Cisco Packet Tracer PC Command Line 1.0
C:>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:>
```

在R1也能查看到DHCP分配的情况。

```

R1#show ip dhcp pool

Pool vlan10 :
Utilization mark (high/low) : 100 / 0
Subnet size (first/next) : 0 / 0
Total addresses : 254
Leased addresses : 1
Excluded addresses : 0
Pending event : none

1 subnet is currently in the pool
Current index IP address range Leased/Excluded/Total
192.168.1.1 192.168.1.1 - 192.168.1.254 1 / 0 / 254

Pool vlan20 :
Utilization mark (high/low) : 100 / 0
Subnet size (first/next) : 0 / 0
Total addresses : 254
Leased addresses : 1
Excluded addresses : 0
Pending event : none

1 subnet is currently in the pool
Current index IP address range Leased/Excluded/Total
192.168.2.1 192.168.2.1 - 192.168.2.254 1 / 0 / 254
R1#

```

至此，思科路由器DHCP典型组网配置案例已完成！