



## 一：组网需求

客户需要局域网PC ip地址能自动获取，由我司设备统一提供DHCP SERVER功能。根据客户当前组网，考虑PC网关设备作为DHCP RELAY，DHCP SERVER功能统一在MSR3620\_1设备上配置，还有防止其他设备配置DHCP SERVER功能，在我司接入设备S5820V2上配置DHCP SNOOPING功能。

## 二：组网图

## 三：配置步骤

### DHCP SERVER设备配置

```
<DHCP-SERVER>dis cur
#
version 7.1.059, Alpha 7159
#
sysname DHCP-SERVER
#
dhcp enable
#
dhcp server ip-pool 3082
gateway-list 192.168.2.1
network 192.168.2.0 mask 255.255.255.0
dns-list 192.168.2.1
#
interface GigabitEthernet0/0
port link-mode route
combo enable copper
ip address 172.16.1.1 255.255.255.252
#
ip route-static 192.168.2.0 24 172.16.1.2 到中继设备的回程路由
```

### DHCP RELAY设备配置

```
<DHCP-RELAY>dis cur
#
version 7.1.059, Alpha 7159
#
sysname DHCP-RELAY
#
dhcp enable
dhcp relay client-information record //启用DHCP中继的用户地址表项记录功能, 缺省情况下，DHCP中继用户地址表项记录功能处于关闭状态
#
interface GigabitEthernet0/0
port link-mode route
combo enable copper
ip address 192.168.2.1 255.255.255.0
dhcp select relay
dhcp relay server-address 172.16.1.1
#
interface GigabitEthernet0/2
port link-mode route
combo enable copper
ip address 172.16.1.2 255.255.255.252
#
```

### DHCP SNOOPING设备配置

```
<DHCP-SNOOPING>dis cur
#
version 7.1.059, Alpha 7159
#
sysname DHCP-SNOOPING
#
```

```

dhcp snooping enable
#
interface GigabitEthernet1/0/1
port link-mode bridge
combo enable fiber
dhcp snooping trust
#
interface GigabitEthernet1/0/2
port link-mode bridge
combo enable fiber
dhcp snooping binding record//启用端口的DHCP Snooping表项记录功能, 缺省情况下, 在启用DHC
P Snooping功能后, 端口的DHCP Snooping表项记录功能处于关闭状态
#

```

#### PC获取地址是192.168.2.3

[PC]dis ip int b (使用交换机模拟PC)

\*down: administratively down

(s): spoofing (l): loopback

Interface	Physical	Protocol	IP Address	Description
GE1/0/1	up	up	192.168.2.3	--

[PC]dis ip routing-table

Destinations : 13 Routes : 13

Destination/Mask	Proto	Pre	Cost	NextHop	Interface
0.0.0.0/0	Static	70	0	192.168.2.1	GE1/0/1
0.0.0.0/32	Direct	0	0	127.0.0.1	InLoop0

<DHCP-SERVER>dis dhcp server ip-in-use

IP address	Client identifier/ Hardware address	Lease expiration	Type
192.168.2.3	0033-6161-642e-3632-	Nov 16 19:02:51 2014	Auto(C)

<DHCP-RELAY>dis dhcp relay client-information

Total number of client-information items: 1

Total number of dynamic items: 1

Total number of temporary items: 0

IP address	MAC address	Type	Interface	VPN name
192.168.2.3	3aad-629a-0806	Dynamic	GE0/0	N/A

<DHCP-SNOOPING>dis dhcp snooping binding

1 DHCP snooping entries found.

IP address	MAC address	Lease	VLAN	SVLAN	Interface
192.168.2.3	3aad-629a-0806	85618	1	N/A	GE1/0/2

#### 四：配置关键点

第一：server设备需要有到用户网段的回程路由

第二：relay设备需要开启DHCP功能

第三：snooping设备上行端口必须配置为信任端口