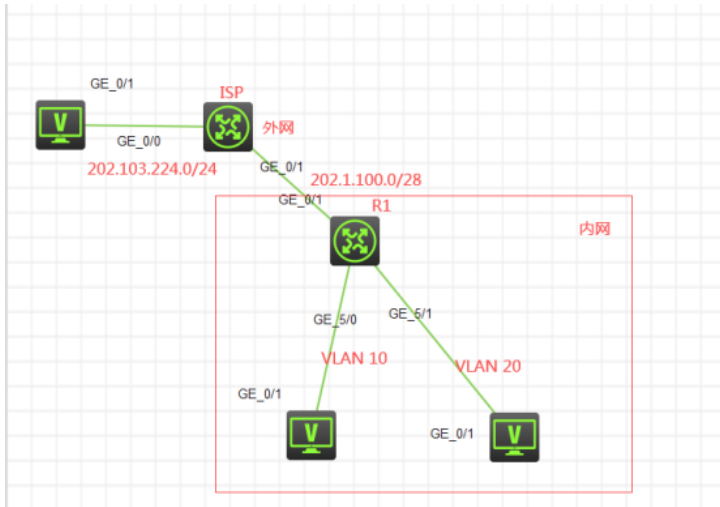


组网及说明



组网说明：本案例是采用H3C HCL模拟器来模拟搭建basic NAT的组网环境，内网和外网均以在网络拓扑图中有了明确的标识，R1是某局点的内网设备，R1为出口设备，某局点申请了202.1.100.3-202.1.100.5范围的公网地址，内网终端需要通过NAT地址转换来访问外网。PC-3为外网的服务器。本案例要求PC-4、PC-5能通过转换为202.1.100.3-202.1.100.5范围内的公网地址来访问PC-3。

配置步骤

- 1、按照网络拓扑图正确配置IP地址
- 2、在R1配置NAT，实现地址转换
- 3、R1配置默认路由指向到外网
- 4、PC-4、PC-5能通过地址转换后PING通外网服务器PC-3

配置关键点

```

R1:
<H3C>sys
[H3C]sysname R1
[R1]int LoopBack 0
[R1-LoopBack0]ip address 2.2.2.2 32
[R1-LoopBack0]quit
[R1]router id 2.2.2.2
[R1]vlan 10
[R1-vlan10]quit
[R1]vlan 20
[R1-vlan20]quit
[R1]int vlan 10
[R1-Vlan-interface10]ip address 192.168.10.1 24
[R1-Vlan-interface10]quit
[R1]int vlan 20
[R1-Vlan-interface20]ip address 192.168.20.1 24
[R1-Vlan-interface20]quit

[R1]int gi 5/0
[R1-GigabitEthernet5/0]port link-mode bridge
[R1-GigabitEthernet5/0]port link-type access
[R1-GigabitEthernet5/0]port access vlan 10
[R1-GigabitEthernet5/0]quit
[R1]int gi 5/1
[R1-GigabitEthernet5/1]port link-mode bridge
[R1-GigabitEthernet5/1]port link-type access
[R1-GigabitEthernet5/1]port access vlan 20
[R1-GigabitEthernet5/1]quit
    
```

```
[R1]int gi 0/1
[R1-GigabitEthernet0/1]description <connect to ISP>
[R1-GigabitEthernet0/1]ip address 202.1.100.2 28
[R1-GigabitEthernet0/1]quit
```

NAT配置:

```
[R1]acl basic 2000
[R1-acl-ipv4-basic-2000]rule 0 permit source any
[R1-acl-ipv4-basic-2000]quit
```

```
[R1]nat address-group 1
[R1-address-group-1]address 202.1.100.3 202.1.100.5
[R1-address-group-1]quit
```

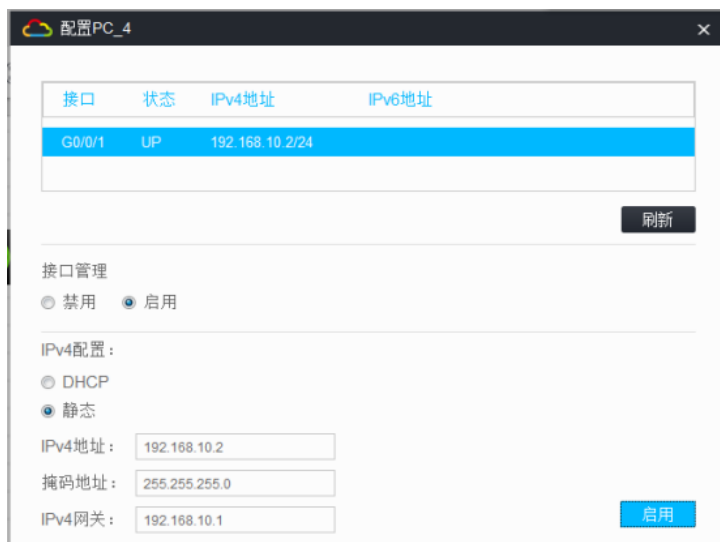
```
[R1]int gi 0/1
[R1-GigabitEthernet0/1]nat outbound 2000 address-group 1 no-pat
[R1-GigabitEthernet0/1]quit
[R1]ip route-static 0.0.0.0 0.0.0.0 202.1.100.1
```

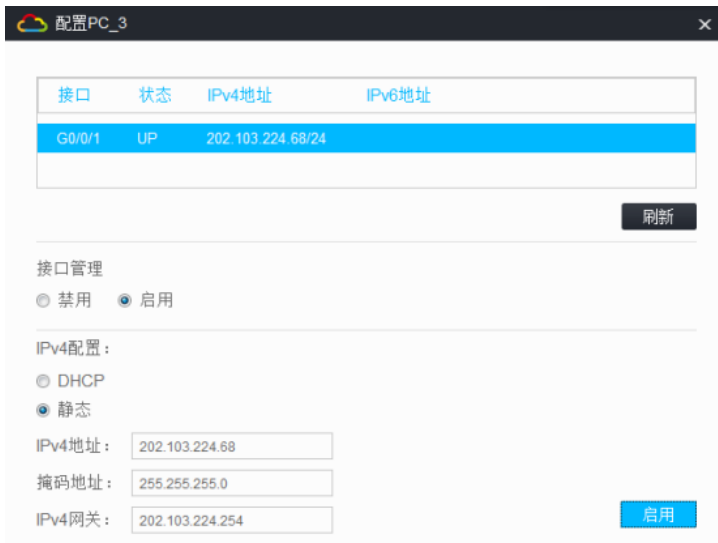
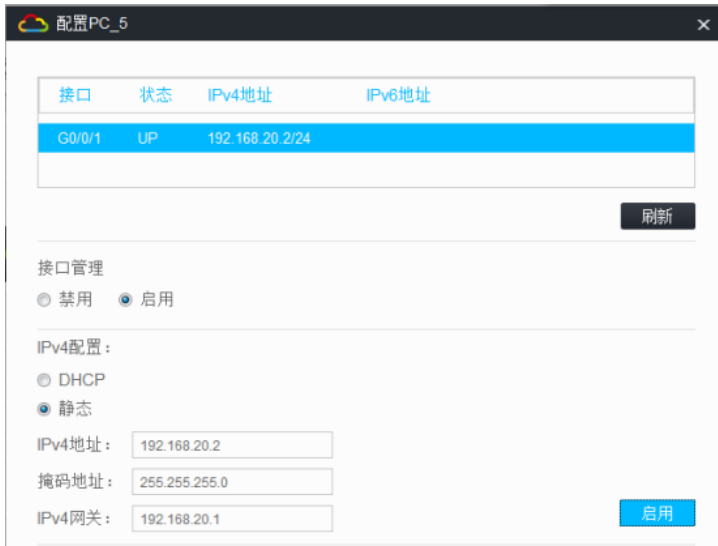
ISP:

```
<H3C>sys
[H3C]sysname ISP
[ISP]int gi 0/1
[ISP-GigabitEthernet0/1]description <connect to R1>
[ISP-GigabitEthernet0/1]ip address 202.1.100.1 28
[ISP-GigabitEthernet0/1]quit
[ISP]int gi 0/0
[ISP-GigabitEthernet0/0]description <connect to PC-3>
[ISP-GigabitEthernet0/0]ip address 202.103.224.254 24
[ISP-GigabitEthernet0/0]quit
```

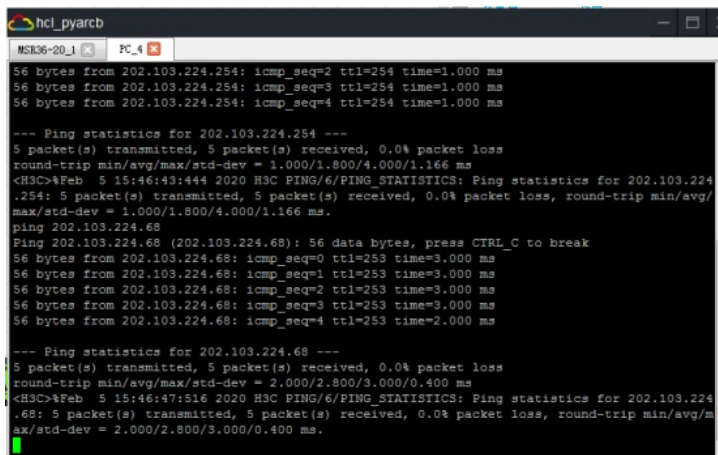
测试:

所有PC都填写上IP地址、子网掩码、默认网关





PC-4和PC-5能PING通PC-3



```
hcl_pyarcb
MS308-20_1 PC_4 PC_5
<H3C>ping 202.103.224.68
Ping 202.103.224.68 (202.103.224.68): 56 data bytes, press CTRL_C to break
56 bytes from 202.103.224.68: icmp_seq=0 ttl=253 time=2.000 ms
56 bytes from 202.103.224.68: icmp_seq=1 ttl=253 time=2.000 ms
56 bytes from 202.103.224.68: icmp_seq=2 ttl=253 time=2.000 ms
56 bytes from 202.103.224.68: icmp_seq=3 ttl=253 time=2.000 ms
56 bytes from 202.103.224.68: icmp_seq=4 ttl=253 time=2.000 ms
--- Ping statistics for 202.103.224.68 ---
5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss
round-trip min/avg/max/std-dev = 2.000/2.800/6.000/1.600 ms
<H3C>%Feb  5 15:47:04:468 2020 H3C PING/6/PING_STATISTICS: Ping statistics for 202.103.224.68: 5 packet(s) transmitted, 5 packet(s) received, 0.0% packet loss, round-trip min/avg/max/std-dev = 2.000/2.800/6.000/1.600 ms.
```

查看NAT的转换情况及会话清单:

```
[R1]dis nat session brief
Slot 0:
Protocol   Source IP/port      Destination IP/port  Global IP/port
ICMP      192.168.20.2/171    202.103.224.68/2048  202.1.100.3/0
ICMP      192.168.10.2/175    202.103.224.68/2048  202.1.100.5/0
Total sessions found: 2
[R1]
```

至此，basic NAT典型组网配置案例已完成!