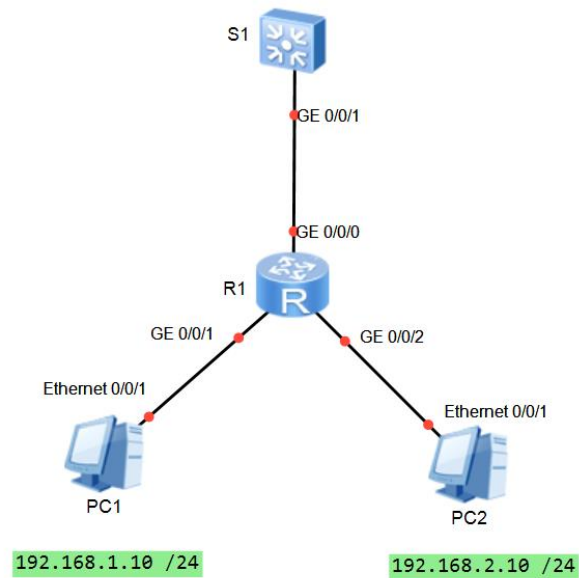


EC Advanced topics in networks

Configuration of real Huawei devices – NAT



Addressing table:

Device	Interface	IP Address	Default gateway
R1	GE0/0/0	209.165.201.1 /30	-
	GE0/0/1	192.168.1.1 /24	-
	GE0/0/2	192.168.2.1 /24	-
S1	VLAN 1	209.165.201.2 /30	-
PC1	Ethernet 0/0/1	192.168.1.10 /24	192.168.1.1
PC2	Ethernet 0/0/1	192.168.2.10 /24	192.168.2.1

Exercises

1. Configure IP address in R1 router according to the above table.

```
[RX]interface GigabitEthernet 0/0/X ?
```

```
[RX- GigabitEthernet 0/0/X]ip address ?  
X.X.X.X      IP address
```

2. Create interface VLAN 1 on S1 switch and configure IP address according to the table above.

```
[S1]interface Vlanif ?
```

```
<1-4094> VLAN interface number
```

```
[S1-Vlanif20]ip address X.X.X.X XX
```

3. Set up the interface G0/0/1 on switch S1 in access mode

```
[S1-GigabitEthernet0/0/X]port link-type access
```

```
[S1-GigabitEthernet0/0/X]port default vlan ?  
INTEGER<1-4094> VLAN ID
```

4. Configure default static route on router R1. This route will forward all traffic from R1 to switch S1.

```
[R1]ip route-static 0.0.0.0 0.0.0.0 X.X.X.X
```

5. On S1 switch configure static route to network 119.84.111.240 /29

```
[S1]ip route-static 119.84.111.240 255.255.255.248 X.X.X.X
```

6. Configure access control list for networks which will be translated using NAT

```
[R1]acl 2000  
[R1-acl-basic-2000]rule permit source 192.168.1.0 0.0.0.255  
[R1-acl-basic-2000]rule permit source 192.168.2.0 0.0.0.255
```

7. On interface G0/0/0 on R1 router enable NAT mechanism.

```
[R1]nat address-group 1 119.84.111.241 119.84.111.243  
[R1]interface GigabitEthernet 0/0/0  
[R1-GigabitEthernet0/0/0]nat outbound 2000 address-group 1
```

8. Check NAT mechanism using following commands

```
<R1>display acl 2000  
<R1>display nat session all
```

9. Use ping commands to check connections between computers and the switch.