# **地址转换**

The interfaces IP setting is same as always.

[R1]acl number 2001

[R1-acl-2001]rule 0 permit source 10.0.0.0 0.0.0.255 -> the permit source is literally the coming IP source (IP connecting to the router from the Servers), and the last number is always 0 meaning the permitted source starts from 0, the mask 24 is written the other way (24 = 255.255.255.0 therefore 0.0.0.255)

[R1-acl-2001]rule 1 deny source any

[R1]nat address-group 1

[R1-address-group-1]add 192.168.5.150 192.168.5.154 -> add the ip you want to allow to connect 192.168.5.\*/24 (table num \* 5 + 100), set address range

[R1-Ethernet0/1]nat outbound 2001 address-group 1 -> the interface is the one connected to the internet

[R1]ip route-static 0.0.0.0 0.0.0.0 192.168.5.1

# **端口聚合**

[S1]stp enable

[S1]inter Bridge-Aggregation 1

[S1-Bridge-Aggregation]link-aggregation mode dynamic

[S1]int e 1/0/1

[S1-Ethernet1/0/1]port link-aggregation group 1

[S1-Ethernet 1/0/1]int e 1/0/2

[S1-Ethernet 1/0/2]port link-aggregation group 1

[S1]int Bridge-Aggregation 1

[S1-Bridge-Aggregation1]port link-type trunk

[S1-Bridge-Aggregation1]port trunk permit vlan all

S2 must be set too, this is used when there are multiple port connections between Servers (in this case 1/0/1 and 1/0/2)

# **VLAN配置**

[h3c]vlan 2

[h3c]port e 1/0/1 to e 1/0/2

# **Trunk配置**

Usually used when there are multiple VLAN going through a server to another server, for example server S1 got VLAN 2 and 3 going through to S1 via port e 1/0/13

[S1]inter e 1/0/13

[S1-Ethernet 1/0/13]port link-type trunk

[S1-Ethernet 1/0/13]port trunk permit VLAN 2 3 (or simply all)

# **静态路由配置**

Usually used by Routers when connecting to internet

[R1]ip route-static 0.0.0.0 0.0.0.0 192.168.5.1 (in this case the IP for R1 connecting to the internet is 192.168.5.\*)

In case of connecting to the internet the first IP is usually 0.0.0.0 means that it could be of any IP addresses, the following is the mask (also could be of any mask) because we can’t predict which IP we’re going to open. The last one is the IP that has to be passed by before going to the dest IP

# **RIP配置**

Set RIP on Servers and Routers including all IPs

[R1]rip

[R1-rip-1]network 192.168.1.0 -> the last number is always 0 (in this case there’s an IP 192.168.1.2/24 on R1)

# **Loopback配置**

[h3c]inter loopback 1

[h3c-loopback1]ip add 192.168.1.1 32

# **OSPF配置**

Similar to RIP

[R1]router id 1.1.1.1

[R1]ospf

[R1-ospf]area 0

[R1-ospf-area-0.0.0.0]network 30.1.1.1.0 0.0.0.255

[R1-ospf-area-0.0.0.0]network 40.1.1.1.0 0.0.0.255

[R1-ospf-1]default-route-advertise cost 100