Active-Active-VRRP (Active Active Virtual Router Redundancy Protocol) Configuration

Configuring Active-Active-VRRP

In L2/L3, Active-Active-VRRP is supported for both preempt and non-preempt parameters.

The only different between Vrrp and Active-Active-VRRP command is that Active-Active-VRRP should enable load-balance.

Active-Active-VRRP can produce two virtual mac addresses, the format of master virtual mac address is 00:00:5E:00:01:VRID, the format of slave virtual mac address is 00:00:5E:00:02:VRID. These two virtual mac should be installed on both master and slave switches. These virtual mac is used for communicating with each other (master and slave) and other equipment. When the host send arp request for virtual ip, the master node will send arp reply with one of two virtual mac addresses by hash method based on the source mac address in the arp request packet.

When the arp table learned a new mac address of the host on the one of two vrrp nodes, this node will notice the another node with the new ip address, and then the another node will send arp request for the mac address of the host. The max 255 ip addresses are announced at a time between master and slave node.

How to deal with arp request for Virtual Ip

The master can not learn the arp when the arp request destination ip address is virtual ip. But it can send arp reply for this arp request.

The rules of synchronous Arp

Whether the Arp table entry can be synchronized is decided by the ip in arp table entry. If the ip network segment are same with virtual ip network segment.

Suggestion

It is better to configure the virtual ip network segment same with the L3 interface ip network segment.

Notice

Active-Active-VRRP only can support two VRRP node, one is master, another is slave.

In the configuration below, a virtual router with IP 192.168.1.5/24 is created. VRRP preemption and VRRP priority can be configured.

```
admin@XorPlus# set vlans vlan-id 2
admin@XorPlus# set vlans vlan-id 3
admin@XorPlus# set interface gigabit-ethernet ge-1/1/2 family ethernet-switching native-vlan-id 2
admin@XorPlus# set interface gigabit-ethernet ge-1/1/3 family ethernet-switching native-vlan-id 3
admin@XorPlus# set vlans vlan-id 2 l3-interface vlan-2
admin@XorPlus# set vlans vlan-id 3 l3-interface vlan-3
admin@XorPlus# set vlan-interface interface vlan-2 vif vlan-2 address 192.168.1.1 prefix-length 24
admin@XorPlus# set vlan-interface interface vlan-3 vif vlan-3 address 192.168.2.1 prefix-length 24
admin@XorPlus# commit
Waiting for merging configuration.
Commit OK.
Save done.
admin@XorPlus# set protocols vrrp interface vlan-2 vrid 1
admin@XorPlus# set protocols vrrp interface vlan-2 vif vlan-2 vrid 1 ip 192.168.1.5
admin@XorPlus# set protocols vrrp interface vlan-2 vif vlan-2 vrid 1 load-balance disable false
admin@XorPlus# set protocols vrrp interface vlan-2 vif vlan-2 vrid 1 preempt true
admin@XorPlus# set protocols vrrp interface vlan-2 vif vlan-2 vrid 1 priority 100
admin@XorPlus# commit
Waiting for merging configuration.
Commit OK.
Save done.
admin@XorPlus#
```

Check the VRRP configuration.
admin@XorPlus# run show vrrp vlan-2
Interface vlan-2
Vif vlan-2
VRID 1
State master
Master IP 192.168.1.1
admin@XorPlus#