

两台S6506R在同一Vlan下配置多个VRRP的案例

[问题描述]:

某客户网络采用两台S6506R作为局域网双核心，所有三层都终结在S6506R上，主要运行VRRP和MS TP。现在的问题是，客户网络在同一个vlan下存在多个IP网段，需要在每个网段运行VRRP，这与平常的一个vlan对应一个IP网段，每个vlan仅运行一个VRRP有点不同。

[组网拓扑]:

[设备配置]:

S6506R-1的配置如下:	S6506R-2的配置如下:
<pre># interface Vlan-interface126 description YeWuWang ip address 56.160.45.253 255.255.255.0 ip address 56.160.35.253 255.255.255.0 sub ip address 56.160.48.29 255.255.255.224 sub vrrp vrid 35 virtual-ip 56.160.35.254 vrrp vrid 35 priority 120 vrrp vrid 35 preempt-mode timer delay 30 vrrp vrid 35 timer advertise 3 vrrp vrid 35 track GigabitEthernet6/0/22 reduced 40 vrrp vrid 45 virtual-ip 56.160.45.254 vrrp vrid 45 priority 120 vrrp vrid 45 preempt-mode timer delay 30 vrrp vrid 45 timer advertise 3 vrrp vrid 45 track GigabitEthernet6/0/22 reduced 40 vrrp vrid 48 virtual-ip 56.160.48.30 vrrp vrid 48 priority 120 vrrp vrid 48 preempt-mode timer delay 30 vrrp vrid 48 timer advertise 3 vrrp vrid 48 track GigabitEthernet6/0/22 reduced 40 # interface Vlan-interface200 description GuanLiWang ip address 56.160.174.253 255.255.255.0 ip address 56.160.128.253 255.255.255.0 sub ip address 56.160.175.253 255.255.255.0 sub ip address 56.160.173.253 255.255.255.0 sub vrrp vrid 128 virtual-ip 56.160.128.98 vrrp vrid 128 timer advertise 3 vrrp vrid 173 virtual-ip 56.160.173.98 vrrp vrid 173 timer advertise 3 vrrp vrid 174 virtual-ip 56.160.174.98 vrrp vrid 174 timer advertise 3 vrrp vrid 175 virtual-ip 56.160.175.98 vrrp vrid 175 timer advertise 3</pre>	<pre># interface Vlan-interface126 description YeWuWang ip address 56.160.45.252 255.255.255.0 ip address 56.160.35.252 255.255.255.0 sub ip address 56.160.48.28 255.255.255.224 sub vrrp vrid 35 virtual-ip 56.160.35.254 vrrp vrid 35 timer advertise 3 vrrp vrid 45 virtual-ip 56.160.45.254 vrrp vrid 45 timer advertise 3 vrrp vrid 48 virtual-ip 56.160.48.30 vrrp vrid 48 timer advertise 3 # interface Vlan-interface200 description GuanLiWang ip address 56.160.174.252 255.255.255.0 ip address 56.160.128.252 255.255.255.0 sub ip address 56.160.175.252 255.255.255.0 sub ip address 56.160.173.252 255.255.255.0 sub vrrp vrid 128 virtual-ip 56.160.128.98 vrrp vrid 128 priority 120 vrrp vrid 128 preempt-mode timer delay 30 vrrp vrid 128 timer advertise 3 vrrp vrid 128 track GigabitEthernet6/0/22 reduced 40 vrrp vrid 173 virtual-ip 56.160.173.98 vrrp vrid 173 priority 120 vrrp vrid 173 preempt-mode timer delay 30 vrrp vrid 173 timer advertise 3 vrrp vrid 173 track GigabitEthernet6/0/22 reduced 40 vrrp vrid 174 virtual-ip 56.160.174.98 vrrp vrid 174 priority 120 vrrp vrid 174 preempt-mode timer delay 30 vrrp vrid 174 timer advertise 3 vrrp vrid 174 track GigabitEthernet6/0/22 reduced 40 vrrp vrid 175 virtual-ip 56.160.175.98 vrrp vrid 175 priority 120 vrrp vrid 175 preempt-mode timer delay 30 vrrp vrid 175 timer advertise 3 vrrp vrid 175 track GigabitEthernet6/0/22 reduced 40</pre>

[vrrp信息]:

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<GD_HZ_6506A>dis vrrp ver
Interface      : Vlan-interface126
VRID          : 35          Adver. Timer   : 3
Admin Status   : UP          State        : Master
Config Pri     : 120          Run Pri      : 120
Preempt Mode    : YES          Delay Time   : 30
Auth Type      : NONE
Track IF        : GigabitEthernet6/0/22 Pri Reduced : 40
Virtual IP      : 56.160.35.254
Virtual MAC     : 0000-5e00-0123
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Master IP : 56.160.45.253

Interface : Vlan-interface126

VRID : 45 Adver. Timer : 3

Admin Status : UP State : Master

Config Pri : 120 Run Pri : 120

Preempt Mode : YES Delay Time : 30

Auth Type : NONE

Track IF : GigabitEthernet6/0/22 Pri Reduced : 40

Virtual IP : 56.160.45.254

Virtual MAC : 0000-5e00-012d

Master IP : 56.160.45.253

Interface : Vlan-interface126

VRID : 48 Adver. Timer : 3

Admin Status : UP State : Master

Config Pri : 120 Run Pri : 120

Preempt Mode : YES Delay Time : 30

Auth Type : NONE

Track IF : GigabitEthernet6/0/22 Pri Reduced : 40

Virtual IP : 56.160.48.30

Virtual MAC : 0000-5e00-0130

Master IP : 56.160.45.253

注意:

采用在同一vlan下配置多个vrrp的情况下，vrrp的Mster ip都为该interface vlan下的主ip地址，sub 地址仅仅作为vrrp报文的交互用。

存在的风险:

由于此种配置组网应用，尚未经过严格的测试和大规模的应用，不能保证不会引起其他问题，特别是如果需要启动其他应用如gvrp、组播等应用，最好按照经过大规模应用的正常的配置，此方法建议仅作为网络改造过渡用。