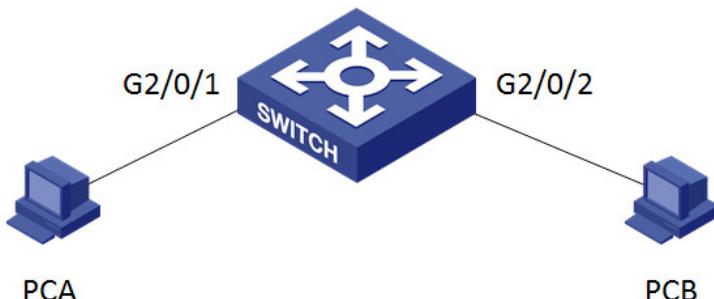


知 流量统计典型配置

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流量统计就是通过与类关联，对符合匹配规则的流进行统计，统计报文数或字节数。是排查丢包和不通类问题的手段。例如，可以统计从某个源IP地址发送的报文，然后管理员对统计信息进行分析，根据分析情况采取相应的措施。

如图所示组网，PCA访问PCB web业务无法访问成功，怀疑网络中存在丢包，使用流量统计，确认丢包位置。在大型网络中通过流量统计也可以缩小故障范围。PCA的IP为1.1.1.1，PCB的IP为2.2.2.2。



定义acl，匹配PCA访问PCB的流量计，在做流量统计时应尽量保证匹配的情况精确，避免抓取到其他业务流量，使流量统计不准确。

[H3C]acl number 3333

[H3C-acl-adv-3333]description traffic accounting for host A to host B

[H3C-acl-adv-3333]rule 10 permit tcp source 1.1.1.1 0.0.0.0 destination 2.2.2.2 0.0.0.0 destination-port eq 80

定义流分类，匹配acl定义的PCA访问PCB的web流量。

[H3C]traffic classifier traffic_accounting_from_A_to_B

[H3C-classifier-traffic_accounting_from_A_to_B]if-match acl 3333

定义流行为，统计报文个数

[H3C]traffic behavior traffic_accounting_from_A_to_B

[H3C-behavior-traffic_accounting_from_A_to_B]accounting packet

定义qos策略，关联流分类和流行为

[H3C]qos policy traffic_accounting_from_A_to_B

[H3C-qospolicy-traffic_accounting_from_A_to_B]classifier traffic_accounting_from_A_to_B behavior traffic_accounting_from_A_to_B

在2/0/1的入方向和2/0/2的出访问下发qos策略，来统计报文是否到达设备和是否被设备转发给PCB。

[H3C]interface GigabitEthernet2/0/1

[H3C-GigabitEthernet2/0/1]qos apply policy traffic_accounting_from_A_to_B inbound

[H3C]interface GigabitEthernet2/0/2

[H3C-GigabitEthernet2/0/2]qos apply policy traffic_accounting_from_A_to_B outbound

使PCA访问PCB，查看接口GigabitEthernet2/0/1流量统计结果

[H3C]display qos policy interface GigabitEthernet 2/0/1

Interface: GigabitEthernet2/0/1

Direction: Inbound

Policy: traffic_accounting_from_A_to_B

Classifier: traffic_accounting_from_A_to_B

Operator: AND

Rule(s) : If-match acl 3333

Behavior: traffic_accounting_from_A_to_B

Accounting Enable:

5 (Packets)

根据结果看出有5个报文进行交换机。查看接口GigabitEthernet2/0/2流量统计结果

[H3C]display qos policy interface GigabitEthernet 2/0/2

Interface: GigabitEthernet2/0/2

Direction: Outbound

Policy: traffic_accounting_from_A_to_B

Classifier: traffic_accounting_from_A_to_B

Operator: AND

Rule(s) : If-match acl 3333

Behavior: traffic_accounting_from_A_to_B

Accounting Enable:

5 (Packets)

有5个报文从交换机发出，说明从A到B转发正常。

使用相同方式对反方向做流量统计，同时查看结果。

[H3C]acl number 3334

[H3C-acl-adv-3334]description traffic accounting for host B to host A

[H3C-acl-adv-3334]rule 10 permit tcp source 2.2.2.2 0.0.0.0 source-port eq 80 destination 1.1.1.1 0.0.

0.0

定义流分类，匹配acl定义的PCA访问PCB的web流量。

[H3C]traffic classifier traffic_accounting_from_B_to_A

[H3C-classifier-traffic_accounting_from_B_to_A]if-match acl 3334

定义流行为，统计报文个数

[H3C]traffic behavior traffic_accounting_from_B_to_A

[H3C-behavior-traffic_accounting_from_B_to_A]accounting packet

定义qos策略，关联流分类和流行为

[H3C]qos policy traffic_accounting_from_B_to_A

[H3C-qospolicy-traffic_accounting_from_B_to_A]classifier traffic_accounting_from_B_to_A behavior traffic_accounting_from_B_to_A

在2/0/2的入方向和2/0/1的出访问下发qos策略，来统计报文是否到达设备和是否被设备转发给PCB。

[H3C]interface GigabitEthernet2/0/1

[H3C-GigabitEthernet2/0/1]qos apply policy traffic_accounting_from_B_to_A outbound

[H3C]interface GigabitEthernet2/0/2

[H3C-GigabitEthernet2/0/2]qos apply policy traffic_accounting_from_B_to_A inbound

使用display qos policy interface查看流量统计结果

[H3C]display qos policy interface GigabitEthernet 2/0/1

Interface: GigabitEthernet2/0/1

Direction: Outbound

Policy: traffic_accounting_from_B_to_A

Classifier: traffic_accounting_from_B_to_A

Operator: AND

Rule(s) : If-match acl 3334

Behavior: traffic_accounting_from_B_to_A

Accounting Enable:

5 (Packets)

[H3C]display qos policy interface GigabitEthernet 2/0/2

Interface: GigabitEthernet2/0/2

Direction: Inbound

Policy: traffic_accounting_from_B_to_A

Classifier: traffic_accounting_from_B_to_A

Operator: AND

Rule(s) : If-match acl 3334

Behavior: traffic_accounting_from_B_to_A

Accounting Enable:

5 (Packets)

通过以上结果可以看出交换机反向转发正常，在交换机上没有丢包。

关键配置如下

acl number 3333

description traffic accounting for host A to host B

rule 10 permit tcp source 1.1.1.1 0 destination 2.2.2.2 0 destination-port eq www

acl number 3334

description traffic accounting for host B to host A

rule 10 permit tcp source 2.2.2.2 0 source-port eq www destination 1.1.1.1 0

#

traffic classifier traffic_accounting_from_A_to_B operator and

if-match acl 3333

traffic classifier traffic_accounting_from_B_to_A operator and

if-match acl 3334

#

traffic behavior traffic_accounting_from_A_to_B

accounting packet

traffic behavior traffic_accounting_from_B_to_A

accounting packet

#

qos policy traffic_accounting_from_A_to_B

classifier traffic_accounting_from_A_to_B behavior traffic_accounting_from_A_to_B

```
qos policy traffic_accounting_from_B_to_A
classifier traffic_accounting_from_B_to_A behavior traffic_accounting_from_B_to_A
#
interface GigabitEthernet2/0/1
qos apply policy traffic_accounting_from_A_to_B inbound
qos apply policy traffic_accounting_from_B_to_A outbound
#
interface GigabitEthernet2/0/2
qos apply policy traffic_accounting_from_B_to_A inbound
qos apply policy traffic_accounting_from_A_to_B outbound
注意事项
1、对匹配的流量计一定要尽量精确，避免其他流量影响统计结果。
2、注意流量双向性和qos策略下发的方向要正确下发。
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