

流量统计是我们在问题定位排查中常用的手段，传统的流量统计通常是我们说的MQC方式下发的accounting packet的动作。这种方式配置繁琐，且显示统计结果的时候只能基于CB统计，无法基于acl中每个rule做统计。下面我们来看下packet-filter是如何对报文进行统计的。

测试的设备和版本

V5: S5800, S125V5

V7: S5820V2, S6800, S125-X, S9800

S5800系列交换机和S125 V5系列交换机，支持出入双向的acl匹配计数。

但是V5设备，只能全局查询acl的匹配计数，不支持V7版本下的display packet-filter statistics命令，如下：

```
[s5800]dis version
H3C Comware Platform Software
Comware Software, Version 5.20, Release 1809P11
```

```
[s5800]dis acl all
Advanced ACL 3000, named -none-, 1 rule,
ACL& # 39;s step is 5
rule 1 permit ip source 10.1.1.10 0 counting (988 times matched)
```

```
Advanced ACL 3001, named -none-, 1 rule,
ACL& # 39;s step is 5
rule 1 permit ip source 10.1.1.58 0 counting (930 times matched)
```

```
[s5800-GigabitEthernet1/0/16]dis this
#
interface GigabitEthernet1/0/16
port link-mode bridge
port access vlan 10
packet-filter 3000 inbound
packet-filter 3001 outbound
#
return
```

```
[s5800]dis packet-filter all inbound
Interface: GigabitEthernet1/0/16
In-bound Policy:
acl 3000, Successful
```

```
[s5800]dis packet-filter all out
[s5800]dis packet-filter all outbound
Interface: GigabitEthernet1/0/16
Out-bound Policy:
acl 3001, Successful
```

S5820V2和S6800交换机，支持出入双向的acl匹配计数，如下：

```
[H3C]dis packet-filter statistics interface GigabitEthernet 2/0/16 inbound
Interface: GigabitEthernet2/0/16
In-bound policy:
ACL 3000
rule 1 permit ip source 10.1.1.10 0 counting (2788 packets)
[H3C]dis packet-filter statistics interface GigabitEthernet 2/0/16 outbound
```

Interface: GigabitEthernet2/0/16

Out-bound policy:

ACL 3001

rule 1 permit ip source 10.1.1.55 0 counting (3080 packets)

[H3C]int gig 2/0/16

[H3C-GigabitEthernet2/0/16]dis this

#

interface GigabitEthernet2/0/16

port link-mode bridge

port access vlan 10

packet-filter 3000 inbound

packet-filter 3001 outbound

#

return

[H3C]dis version

H3C Comware Software, Version 7.1.045, Release 2422P01

S125-X系列交换机 (ARAD&JR) 和S98系列, 支持packet filter方式入方向的acl匹配计数, 不支持出方向的流量统计 (计数始终是1)。

若是必须使用出方向的流量统计, 则必须升级版本至R1138P01版本和R2138P01版本及之后版本, 且必须使用MQC方式下发outbound方向的流量统计。

[H3C]dis version

H3C Comware Software, Version 7.1.045, Release 1138P01

[H3C]dis acl 3000

Advanced ACL 3000, named -none-, 1 rule,

ACL& # 39;s step is 5

rule 1 permit ip source 10.1.1.68 0 counting

[H3C]dis acl 3001

Advanced ACL 3001, named -none-, 1 rule,

ACL& # 39;s step is 5

rule 2 permit ip source 20.1.1.68 0 counting

[H3C]int Ten-GigabitEthernet 1/3/0/16

[H3C-Ten-GigabitEthernet1/3/0/16]dis this

#

interface Ten-GigabitEthernet1/3/0/16

port link-mode bridge

port access vlan 10

packet-filter 3000 inbound

packet-filter 3001 outbound

#

return

[H3C]dis packet-filter statistics interface Ten-GigabitEthernet 1/3/0/16 inbound

Interface: Ten-GigabitEthernet1/3/0/16

In-bound policy:

ACL 3000

rule 1 permit ip source 10.1.1.68 0 counting (2124 packets)

[H3C]display packet-filter statistics interface Ten-GigabitEthernet 1/3/0/16 outbound

Interface: Ten-GigabitEthernet1/3/0/16

Out-bound policy:

ACL 3001

rule 2 permit ip source 20.1.1.68 0 counting (1 packets)

S125X/S9800 FX板卡出方向流量统计使用限制整理:

1、必须使用R1138P01(R2138P01) (含) 之后版本。

- 2、必须使用MQC的方式下发
- 3、二层转发的时候必须统计MAC地址，使用IP地址统计统计不到。
- 4、三层转发的时候必须统计IP地址
- 5、出方向的流量统计实际使用流镜像的方式实现，规格有限制，出方向的资源为6个。
- 6、如果是设备直连PING，则入方向上CPU统计不到，出方向需要按照匹配MAC来匹配
- 7、入方向上CPU的协议报文，统计不到，但可以直接看底层acl的counte记录。还有的方法，就是先去使能协议的counter (debug rtx rxacl acltype) ，再看流量统计。