某局点 相同qos限速策略在V7和V5设备效果不同案例

ACL 张华野 2020-02-27 发表

组网及说明

现场有V7 S5560X 和 V5 S5800，有相同的限速策略，在V5 S5800使用正常，在V7 S5560X下发之后会导致直连无法ping通。

问题描述

现场有V7 S5560X 和 V5 S5800，有相同的限速策略，在V5 S5800使用正常，在V7 S5560X下发之后会导致直连无法ping通。

策略如下：

```
traffic classifier YiZhanHuLian-Tel operator and
if-match acl 3004
 traffic behavior 10m
car cir 10240 cbs 163840 ebs 10240 green pass red discard yellow discard
 traffic classifier any operator and
if-match any
 traffic behavior deny
filter deny
acl number 3004 name YiZhanHuLian-Tel
rule 10 permit ip source 120.1.1.0 0.0.0.255
qos policy YiZhanHuLian-Tel
classifier YiZhanHuLian-Tel behavior 10m
classifier any behavior deny
```

过程分析

由于现场的acl匹配的是ip，所以arp报文无法匹配上acl，从而匹配上了any的类被deny。

```
 traffic classifier any operator and
if-match any
 traffic behavior deny
filter deny
```

现场无法学习arp所以无法ping通。但是经过测试在V5 5800却是可以ping通，正常收发arp的。所以进一步排查

下发的mqc的acl-type 是2

```
[Access-2-diagnose]debug qacl show acl-resc 1  0
----------Qacl Group UsedResc Info----------
-------------------------------------------------------
 Group  7,usedEntries    2,physlice  7,mode Single
 ========================================
  acl type                usedEntries[2]
 ========================================
  [2  ]MQC Port                   2
 ====================================
```

系统下发匹配arp的acl sys-index是29和30

```
[Access-2-diagnose]debug rxtx softcar show 1
29   ARP                0       167086     100  S       On     SMAC 8
30   ARP_REPLY          0       0          100  S       On     SMAC 8
```

通过对比下发的acl发现， mqc下发在了slice7上组优先级是7，arp的系统acl下发在了slice10，组优先级是10，所以系统acl优先级更高，从而无法匹配mqc，不会被deny。

```
[Access-2-diagnose]debug qacl show 1 0 verbose 0acl-type 2
========
Acl-Type MQC Port, Stage IFP, GroupPri 7, EntryID 206, Active
Health 1, PoolFree 0, PoolID 0, Prio_Mjr 518, Prio_Sub 14,Slice 7,SliceIdx 0
Policy YiZhanHuLian-Tel, Classifier YiZhanHuLian-Tel, Behavior 10m
ACL GroupNo : 3004, RuleID : 10
Rule Match --------
        Ports: 0x002000000, 0x01fffffff
       Lookup: STP forwarding, 0x18, 0x18
        Source IP: 120.1.1.0, 255.255.255.0
        IP Type: Any IPv4 packet
Actions --------
```

CAR cir 0x2800, cbs 0x51e, pir 0x2800, pbs 0x51, mode srTCM color blind
Account mode packets, green and red
Grn Permit
Red Deny
Yel Deny
Accounting: Hi 15, LO 0
========
Acl-Type MQC Port, Stage IFP, GroupPri 7, EntryID 207, Active
Health 1, PoolFree 0, PoolID 0, Prio_Mjr 518, Prio_Sub 14,Slice 7,SliceIdx 1
Policy YiZhanHuLian-Tel, Classifier any, Behavior deny
Rule Match --------
Ports: 0x002000000, 0x01fffffff
Actions --------
Deny
[Access-2-diagnose]debug qacl show 1 0 verbose 0 sy
[Access-2-diagnose]debug qacl show 1 0 verbose 0sysidx 29
========
Acl-Type RX IPv4 High, Stage IFP, GroupPri 10, EntryID 153, Active
Health 1, PoolFree 0, PoolID 0, Prio_Mjr 523, Prio_Sub 11,Slice 10,SliceIdx 0
Rule Match --------
Ports: 0x01ffffffe, 0x01fffffff
Lookup: VLAN ID valid, STP forwarding, 0x1c, 0x1c
Dest mac: FFFF-FFFF-FFFF, FFFF-FFFF-FFFF
EtherType: 0x806, 0xffff
SysmRule Index : 29
Vlan Class id: 0xa
Actions --------
CAR cir 0x100, cbs 0x800, pir 0x100, pbs 0x800, mode srTCM color blind
Account mode packets, green and non-green
Copy_to_cpu : Yes
Change CPU pkt COS 6
Permit
Remark DROPPRE 0
Red_Copy_to_cpu : No
Yel_Copy_to_cpu : No
MatchedName:29, ARP
Accounting: Hi 0, LO 0
[Access-2-diagnose]debug qacl show 1 0 verbose 0sysidx 30
========
Acl-Type RX IPv4 High, Stage IFP, GroupPri 10, EntryID 154, Active
Health 1, PoolFree 0, PoolID 0, Prio_Mjr 523, Prio_Sub 11,Slice 10,SliceIdx 1
Rule Match --------
Ports: 0x01ffffffe, 0x01fffffff
Lookup: VLAN ID valid, STP forwarding, 0x1c, 0x1c
EtherType: 0x806, 0xffff
SysmRule Index : 30
DstMac Class id: 0xb
Actions --------
CAR cir 0x100, cbs 0x800, pir 0x100, pbs 0x800, mode srTCM color blind
Account mode packets, green and non-green
Copy_to_cpu : Yes
Change CPU pkt COS 10
Permit
Remark DROPPRE 0
Red_Copy_to_cpu : No
Yel_Copy_to_cpu : No
MatchedName:30, ARP_REPLY
Accounting: Hi 0, LO 0

解决方法

取消如下配置
if-match any
 traffic behavior deny
filter deny