

某局点CR16010-F设备单板[kethvlan/1]进程CPU利用率高问题

鲁一鸣 2018-02-10 发表

某局点CR16010-F设备运行中发现主控板和两块CSPEX-1304X单板CPU利用率很高:

```
=====display cpu=====
Slot 0 CPU 0 CPU usage:           // CSPEX-1304X
    77% in last 5 seconds
    76% in last 1 minute
    77% in last 5 minutes

Slot 1 CPU 0 CPU usage:           // CSPEX-1304X
    72% in last 5 seconds
    72% in last 1 minute
    72% in last 5 minutes

Slot 4 CPU 0 CPU usage:           // CSR05SRP1L1
    90% in last 5 seconds
    82% in last 1 minute
    83% in last 5 minutes
```

查看单板的CPU进程之后发现主要是以下几个进程CPU占用率较高:

```
=====display process cpu on slot 0 cpu 0=====
CPU utilization in 5 secs: 79.6%; 1 min: 78.3%; 5 mins: 77.2%
JID   5Sec   1Min   5Min   Name
.....
 210   0.0%   0.0%   0.0%  [RXTX]
 211  19.5%  19.9%  19.7%  [RXCS]
 212  19.5%  19.9%  19.7%  [RXCP]
 213   0.0%   0.0%   0.0%  [RXSM]
 214  19.5%  19.9%  19.7%  [RXSV]
 215   0.0%   0.0%   0.0%  [RXSTK]
.....
 397   0.0%   0.0%   0.0%  [kmfib/1]
 408  12.4%  13.3%  13.3%  [kethvlan/1]
 430   0.0%   0.0%   0.0%  ipcimd
.....
```

查看配置发现:

```
#
vlan 100
description chengqu_yudong
supervlan
subvlan 2000 to 2018
#
interface Vlan-interface100
ip address 10.147.127.254 255.255.128.0
second-dot1q 2000 to 2999
vlan-termination broadcast enable
dhcp select relay
dhcp relay server-address 192.168.26.70
dhcp relay server-address 192.168.26.60
#
```

[kethvlan/1] 进程高的原因主要是配置了vlan-termination broadcast enable, 在supervlan的组网方式中, 配置了vlan-termination broadcast enable后, subvlan 2000 to 2018, second-dot1q 2000 to 2999, 发送一个广播报文会copy 19*1000份。

而其他几个进程[RXCS]、[RXCP]、[RXSV]则是正常的转发进程, 其CPU占用率高也是由vlan-termination broadcast enable命令并发产生。

去掉vlan-termination broadcast enable命令的配置。

去掉广播发送以后, 设备依然能处理接收的广播报文, 只是不主动发送广播报文而已。在没有arp时, 需要对端来发送arp广播报文学习arp;

当两端arp都学到以后, 刷新arp表项交互的是单播请求报文, 并不受影响。

在双层vlan终结的情况下，不管是qinq终结，还是supervlan组网，双层tag下，都不建议配置广播发送

。