New issue

Jump to bottom

Intel 82599 Rx counter not working with higher than 1514 bytes #165

Open **hopoaat** opened this issue on 29 Mar 2017 · 7 comments

hopoaat commented on 29 Mar 2017 • edited

Hi!

Did you observe absolute packet drop (all packets on Rx side) on Intel 82599ES NIC when receiving a higher frame than 1514 bytes with latest MoonGen version (commit `eb3ee32`)?

- We use 1 port both for Tx, and Rx.
- Jumbo frame is enabled on eXtreme switch, server, and in vm too.
- On Tx side we observed that, the traffic goes out from the NIC even if we transmit over 2000 bytes/frame.
- The traffic goes a round trip, like this:
  Nic(tx)->eXtreme SW->Server->Vm(loopback)->Server->eXtreme SW->Nic(rx)
  Until Nic(rx) state I can see the counters(in eXtreme too), and seems like they are ok. The eXtreme forward the traffic back to the NIC, but we can't detect packets arriving to the NIC with MoonGen.
- Hardware rate controll used.
- Port setup

```
    local txDev = device.config{ port = args.txDev, rxQueues = args.queues, txQueues =
args.queues}
    local rxDev
    if args.rxDev == args.txDev then
        rxDev = txDev
    else
        rxDev = device.config{ port = args.rxDev, rxQueues = args.queues }
    end
```

- The counting task something like this:

```
function counterSlave(queue)
       local rxStats = stats:newDevRxCounter(queue, "plain")
       local bufs = memory.bufArray()
       while mg.running and runtime:running() do
           local rx = queue : tryRecv ( bufs , 100 )
           --Algorithm on packets here
           rxStats:update()
           bufs:freeAll()
       end
       rxStats:finalize()
   end
```

- Tried with ''dropEnable = false'' - not helped
  Any suggestion?

Thanks for your help!

Br,

Peter

fernnf commented on 29 Mar 2017 • edited

Hi,

This happen because libmoon is configuring dpdk port without jumbo frame feature, I was a patch that enables this. You need apply this patch on device.c of libmoon sources.

--- device.c 2017-03-29 14:27:18.657159902 -0300
+++ device.c 2017-03-22 14:49:13.263529000 -0300
@@ -118,8 +118,9 @@
.header_split = 0,
.hw_ip_checksum = !cfg->disable_offloads,
.hw_vlan_filter = 0,
- .jumbo_frame = 0,
+ .jumbo_frame = 1,
.hw_strip_crc = 1,
+ .max_rx_pkt_len= 9218,
.hw_vlan_strip = cfg->strip_vlan ? 1 : 0,
},
.txmode = {

Try this !

hopoaat commented on 29 Mar 2017

Hi!

Thanks for the patch!
Worked!

Br,

Peter

emmericp commented on 29 Mar 2017

thanks!

I'll add something in the port configuration to enable jumbo frames manually.

hopoaat closed this on 29 Mar 2017

emmericp commented on 29 Mar 2017

(re-opening because I'd like to create a proper fix for this some time later)

emmericp reopened this on 29 Mar 2017

hopoaat commented on 31 Mar 2017 • edited

Ok. I also suggest to extend your MoonGen/examples/benchmark/packet-sizes.lua script to handle Jumbo frames, so others may find example of the usage. (Or write another example for it.)

Br,

Peter

adolia commented on 7 Feb 2018

Hi!
I have the same issue on 82599ES 10-Gigabit SFI/SFP+ Network Connection NIC.
I've set
```
.jumbo_frame = 1, .hw_strip_crc = 1, .max_rx_pkt_len = 15872,
```
to port_conf, but all packets > 10K are being dropped.
Any idea? Also, is it possible to set MTU value?
Thanks in advance.
Br,
Alex

hopoaat mentioned this issue on 20 Feb 2019

Large tailored UDP packets gives segmentation fault #235

Open

emmericp commented on 21 Feb 2019

I don't think the ixgbe driver supports frames > 10k? (while the hardware should technically support it)

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Linked pull requests

Successfully merging a pull request may close this issue.

None yet

4 participants