

Intel 原装万兆光纤网卡 X 无法识别问题解决案例

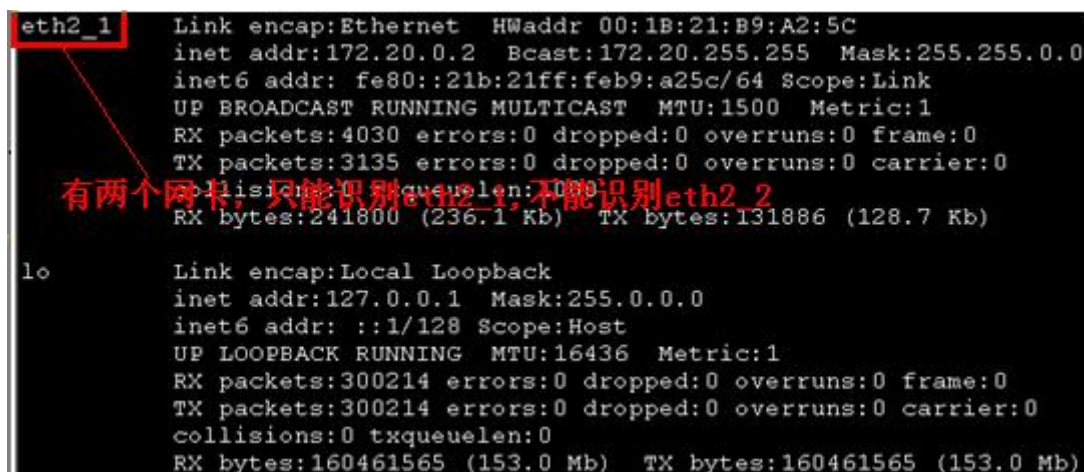
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问题描述

故障现象：在系统下执行 `ifconfig -a` 查询服务器所有网卡在位信息，有两个 intel82599 E10G42BFSR

X520-SR2 10G 双口网卡（eth2_1 和 eth2_2），但只能够查询到其中 1 个网卡 eth2_1 如图 1 中红色框所示：

示：



```
eth2_1  Link encap:Ethernet  HWaddr 00:1B:21:B9:A2:5C
        inet addr:172.20.0.2  Bcast:172.20.255.255  Mask:255.255.0.0
        inet6 addr: fe80::21b:21ff:feb9:a25c/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:4030 errors:0 dropped:0 overruns:0 frame:0
        TX packets:3135 errors:0 dropped:0 overruns:0 carrier:0
        RX bytes:241800 (236.1 Kb)  TX bytes:131886 (128.7 Kb)

lo      Link encap:Local Loopback
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
        UP LOOPBACK RUNNING  MTU:16436  Metric:1
        RX packets:300214 errors:0 dropped:0 overruns:0 frame:0
        TX packets:300214 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:0
        RX bytes:160461565 (153.0 Mb)  TX bytes:160461565 (153.0 Mb)
```

有两个网卡，只能识别eth2_1，不能识别eth2_2

图 1 查询网卡在位信息

告警信息

无

处理过程

1) 在系统下执行 `dmesg` 查看 `dmesg` 信息提示 “fail to load because unsupported SFP + module type was detected” 如图 2 红色框所示；

图 2 `dmesg` 打印信息



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```
[ 19.006736] alloc kstat_irqs on node -1
[ 19.006741] ixgbe 0000:03:00.0: irq 75 for MSI/MSI-X
[ 19.006742] alloc irq_desc for 76 on node -1
[ 19.006744] alloc kstat_irqs on node -1
[ 19.006747] ixgbe 0000:03:00.0: irq 76 for MSI/MSI-X
[ 19.007706] ixgbe 0000:03:00.0: (PCI Express:5.0GT/s:Width x8) 00:1b:21:b9:a2:
[ 19.008027] eth1 renamed to eth2_1 by udevd [2497]
[ 19.008230] 5c
[ 19.008245] udev: renamed network interface eth1 to eth2_1
[ 19.008513] ixgbe 0000:03:00.0: eth2_1: MAC: 2, PMY: 15, SFP+: 5, PBA No: E68785-004
[ 19.008674] ixgbe 0000:03:00.0: eth2_1: Enabled Features: RxQ: 16 TxQ: 16 FdirHash RSS RSC
[ 19.010306] ixgbe 0000:03:00.0: eth2_1: Intel(R) 10 Gigabit Network Connection
[ 19.010493] alloc irq_desc for 37 on node -1
[ 19.010494] alloc kstat_irqs on node -1
[ 19.010501] ixgbe 0000:03:00.1: PCI INT B -> GSI 37 (level, low) -> IRQ 37
[ 19.010633] ixgbe 0000:03:00.1: setting latency timer to 64
[ 19.012259] igb 0000:02:00.3: Intel(R) Gigabit Ethernet Network Connection
[ 19.012366] igb 0000:02:00.3: eth1: (PCIe:5.0GT/s:Width x4) 00:1b:21:
[ 19.012531] eth1 renamed to eth1_1 by udevd [2499]
[ 19.012740] 65:
[ 19.012756] udev: renamed network interface eth1 to eth1_1
[ 19.012976] ea:53
[ 19.013185] igb 0000:02:00.3: eth1_1: PBA No: E84075-001
[ 19.013286] igb 0000:02:00.3: Using MSI-X interrupts. 1 rx queue(s) 1 tx queue(s)
[ 19.015720] eth0 renamed to eth1_4 by udevd [2524]
[ 19.016047] udev: renamed network interface eth0 to eth1_4
[ 19.036751] ixgbe 0000:03:00.1: failed to load because an unsupported SFP+ module type was detected.
[ 19.036920] ixgbe 0000:03:00.1: removed the driver after installing a supported module.
[ 19.037098] ixgbe 0000:03:00.1: PCI INT B disabled
```

2) 根据图 2 的错误打印可知，网卡 eth2_2(03:00.1)不支持此光模块类型导致不能成功加载，所以在系统下无法加载网卡 eth2_2；

3) Intel 82599 网卡需要配套 Intel 原厂的光模块，其它厂家的光模块不支持；

建议与总结

1、更换为 Intel 82599 网卡自带的光模块。

2、BRO-WAY 系列光模块可全面支持 Intel 系列光纤网卡。如：

Intel 网卡----40G 网卡

Intel XL710-QDA2 (40G, 双口, PCI-E x8 网卡)

Intel XL710-QDA1 (40G, 单口, PCI-E x8 网卡)

Intel 网卡----万兆网卡

Intel E10G42BTDA (X520-DA2, 双口, 光纤, 不带模块, 82599 芯片网卡)

Intel E10G42BFSR (X520-SR2, 双口, 光纤, 含多模模块, 82599 芯片网卡)

Intel E10G41BFSR (X520-SR1, 单口, 光纤, 含多模模块, 82599 芯片网卡)

Intel E10G41BFLR (X520-LR1, 单口, 光纤, 含单模模块, 82599 芯片网卡)



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Intel X710-DA2(Intel 网卡双口, 光纤, x710 芯片网卡)

Intel X710-DA4 (Intel 网卡四口, 光纤, x710 芯片网卡)

Intel 网卡----千兆网卡

Intel EXPI9400PF (单口, 光纤, PCI-E , 服务器网卡)

Intel EXPI9402PF (双口, 光纤, PCI-E, 服务器网卡)

Intel EXPI9404PF (四口, 光纤, PCI-E, 服务器网卡)

Intel E1G42EF (双口, 光纤, PCI-E, 服务器网卡)

Intel I350F2 (双口, 光纤, PCI-E, 服务器网卡)

Intel I350F4 (四口, 光纤, PCI-E, 服务器网卡)