Hi,

I have encountered a network error when the kernel booting-up process is complete on a customized board.

The console prints the error as follows:

root@t4240qds:~# fsl\_dpa: fsl-dpa: non-zero error counters in fman statistics (sysfs)

Sometimes it will report another error which is:

root@t4240qds:~# fsl\_dpa: fsl-dpa: non-zero error counters in fman statistics (sysfs)

fsl\_dpa ethernet.18 fm2-mac1: Err FD status = 0x00040000

fsl\_dpa ethernet.18 fm2-mac1: Err FD status = 0x00040000

fsl\_dpa ethernet.18 fm2-mac1: Err FD status = 0x00040000

fsl\_dpa ethernet.18 fm2-mac1: Err FD status = 0x00040000

CPU : T4240 Version 2.0

Kernel : linux-3.12.19 from QorIQ-SDK-V1.6

U-boot: u-boot-2015.01 from QorIQ-SDK-V1.8

FMan: fsl\_fman\_ucode\_t4240\_r2.0\_106\_4\_14 from QorIQ-SDK-V1.6

PHY: VSC8488

According to the kernel code(driver/net/Ethernet/freescale/dpa/dpaa\_eth.c line 257) comments the error “FM\_FD\_STAT\_ERR\_PHYSICAL”

means:

/\*\*< Rx FIFO overflow, FCS error, code error, running disparity

error (SGMII and TBI modes), FIFO parity error. PHY Sequence error, PHY error control character detected. \*/

In order to locate the error, I added the following code to the end of the function “static void \_dpa\_rx\_error()” (driver/net/Ethernet/freescale/dpa/dpaa\_eth.c line 243)

printk("percpu\_priv->stats.rx\_errors : %lld \n", percpu\_priv->stats.rx\_errors);

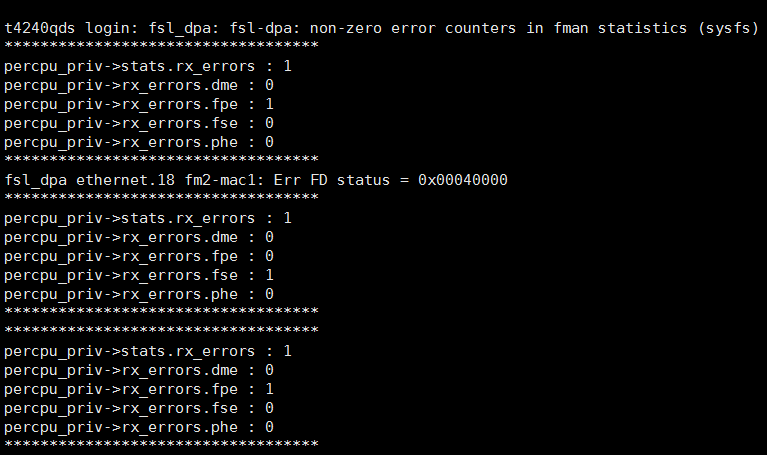
printk("percpu\_priv->rx\_errors.dme : %lld \n", percpu\_priv->rx\_errors.dme);

printk("percpu\_priv->rx\_errors.fpe : %lld \n", percpu\_priv->rx\_errors.fpe);

printk("percpu\_priv->rx\_errors.fse : %lld \n", percpu\_priv->rx\_errors.fse);

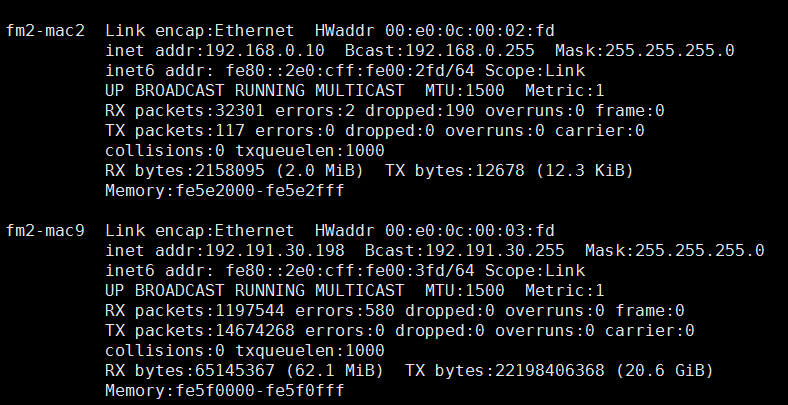
printk("percpu\_priv->rx\_errors.phe : %lld \n", percpu\_priv->rx\_errors.phe);

And the console prints as follows:



When I tested the speed of the 10GE network through iperf-2.0.5, the number of the error counters continuously increased.

The “ifconfig” command result comes out as:



However, the error was not show up when I tested the 1GE network.

I have already done the PRBS31 pattern loopback test on phy(VSC8488), and it works well.

What can I do to fix the error?

Any suggestions would be greatly appreciated!

Have a great day!

Xiao Jun