

1. Issue Description:

Accelerator Card loses connection with BBU and can't SSH login through BBU.

2. Troubleshooting Procedure

2.1 Access accelerator card by serial port and Check status

Dismantle the BBU outer covering and connect to accelerator card by serial port(COM).

Access IP: 192.168.1.11

User Name: root


Password: sjnt1234

After login in accelerator card by serial port, and observe system keeps rebooting.

2.2 Close watch dog of accelerator card to solve reboot issue

Add comment for "sh watchdog.sh &" and "sh fho0amstart.sh &" in file /data/system/app_start

```
root@fgaf-zynqmp:~# cd /data
root@fgaf-zynqmp:/data# cd system/
root@fgaf-zynqmp:/data/system# cat app_start
#!/bin/sh
cd /data
sleep 12
sh md_mac.sh
sh rgps.sh
kmod_path=`uname -r`
insmod /data/kmod/$kmod_path/sjnt_ptp_spi.ko
#sh md_mac_eth0.sh
#sh run_ptp.sh &
#sh run_ptp_2.sh &
sh run_ptp_4.sh &
#sh watchdog.sh &
./gps_main 0x31 &
sleep 1
sh fho0amStart.sh &
#sh fpga_cfg_J.sh
sleep 5
cd /data
./cfg-4-0831.sh &root@fgaf-zynqmp:/data/system#
```




2.3 Check version and system(OAM) files

Check version information, it's normal

```
root@fgaf-zynqmp:/var/volatile/tmp# version.sh
FGAF Version Checker v0.5
U-Boot 2019.01-svn6749 (Apr 24 2022 - 16:27:18 +0800)
Kernel 4.19.0-svn6785 #23 SMP Tue Jul 12 13:30:07 HKT 2022
RootFS fgaf-img-fgaf-zynqmp-20220712022
Factory SN:>FGAF4010-V6-20220620-0035.....< C:3 D:6 E:4 H:0 I:0 J:4
FhFPGA 09301100
```

Check the OAM files and find OAM files are missing.

```
sh: xauth: not found
root@fgaf-zynqmp:~# cd /data/
root@fgaf-zynqmp:/data# ls
2ldr.bit.gz      fho0amStart.sh  get_ps_temp      md_mac_eth0.sh  ptp4l-master.cfg  tod_main
cfg-4-0831.sh    flash_factory.sh get_temp.sh       oamBak          ptp4l.out         watchdog.sh
check_ad9545.sh  fpga            gps_main         oamCur          rgps.sh
check_ad9545_2.sh fpga_cfg_H.sh  i2c_sfp          phc_ctl         run_ptp.sh
check_uart.lock  fpga_cfg_J.sh  kmod             pmc             run_ptp_2.sh
factory_data_fgaf.bin fpga_cfg_Z.sh  ku3p.bin        ptp4l           run_ptp_4.sh
fgfc_prj_top.bit fpga_cfg_rusim.sh md_mac.sh        ptp4l-master-cmcc.cfg system
```



```

root@fgaf-zynqmp:/data# cd oamCur/
root@fgaf-zynqmp:/data/oamCur# ls
root@fgaf-zynqmp:/data/oamCur# ls
root@fgaf-zynqmp:/data/oamCur# █

```

3. Solution

3.1 upgrade version of accelerator card

Upload version package of accelerator card (For example:FGAF2.2.0_220811_R.img) to path: /tmp

Run commands to execute upgrade:

```
#cd /tmp
```

```
#fwm.sh -i FGAF2.2.0_220811_R.img
```

```

root@fgaf-zynqmp:/var/volatile/tmp# ls
1588ClkCfgOutput      cur1588ClkCfg      package
FGAF2.2.0_220811_R.img  gnbhosts
root@fgaf-zynqmp:/var/volatile/tmp# fwm.sh -i FGAF2.2.0_220811_R.img
fwm.sh -i FGAF2.2.0_220811_R.img
Installing load in inactive zone: 1
decompressing image
identical checksum of 2ldr.bit.gz, skip update
identical checksum of Image.gz, skip update
identical checksum of ramdisk.u-boot, skip update
identical checksum of zynqmp-fgafv2.dtb, skip update
Writing userfs
identical checksum of ku3p_e.bin.gz, skip update
done

```

3.2 OAM version check after upgrade

Check oam version under path: /data and path: /data/oamCur

if they are same, run commands: “fwm.sh -r” to reboot the accelerator card directly.

If they are not same, delete the oam version package under /data/oamCur, and copy the version package from path /data to /data/oamCur. Then reboot run commands to reboot accelerator card.

```

root@fgaf-zynqmp:/var/volatile/tmp#
root@fgaf-zynqmp:/var/volatile/tmp# cd /data/
root@fgaf-zynqmp:/data# ls
FH0_2.0.0.arm_043.pkg  fpga_cfg_J.sh      oamBak      rgps.sh
ad9545.sh              fpga_cfg_Z.sh      oamCur      run_ptp.sh
check_ad9545.sh        gps_main            phc_ctl      run_ptp_2.sh
check_ad9545_2.sh      i2c_sfp             pmc           run_ptp_4.sh
fhoOamStart.sh         kmod                ptp4l        system
fpga                   md_mac_eth0.sh      ptp4l-master-cmcc.cfg  tod_main
fpga_cfg_H.sh          nmea_main           ptp4l-master.cfg      version_check.txt
root@fgaf-zynqmp:/data# cd oamCur/
root@fgaf-zynqmp:/data/oamCur# ls
FH0_2.0.0.arm_043.pkg
root@fgaf-zynqmp:/data/oamCur# fwm.sh -r
fwm.sh -r
Switching to zone 1
Rebooting.

Broadcast message from root@fgaf-zynqmp (pts/0) (Wed Jul 19 06:42:52 2023):
The system is going down for reboot NOW!
root@fgaf-zynqmp:/data/oamCur# Connection to 192.168.2.24 closed by remote host.
Connection to 192.168.2.24 closed.

```