8/13, FPGA BBFV sizing

1. FPGA flashing

Check if FPGA flashing function is workable or not

1. DIMM TSOD (thermal sensor on die), SPD (Serial presence detect)

DIMM TSOD and SPD information reading (\*ME can read TSOD value.)

1. Devices presence detect

Check devices which detected by FPGA is correct or not. There should be ipmi sensor created for the device presence state.

1. Thermal related item

Thermal sensors reading and CPU thermal trip, throttle detection

1. Power fault detection

FPGA is responsible for power permission and power on sequence check. IMM will log the event once the power faults occur.

FPGA spec 要跟HW TEAM or imm project engineer要, 其值可以透過OEM CMD讀block來知道值

8/17, Learning FPGA OEM CMD reading

DaAn use ME for TSOD reading. And, Miaoli use FPGA core spec for SPD/TSOD reading. It depends on system design.

Need to read FPGA core spec.

8/18, Bring Up testing before BBFV, at least lit up VGA code.

After Award, planar make up and bring up testing within a month.

SPI, ESPI for FPGA and iMM

BBFV scope, add ADC (analog to digital converter), iMM USB, PWM, Fan tech., watchdog

SPS (signal process system)

8/19/15, self reading

Imm inside has LPC of 4KCS for ACPI/SGPIO/PCC/LPCIO

Also has emmc, sdcard, usb hub, and interaction with fan tech, leds, jtag, external pcie, ddr3

What is the purpose of EEPROM? Send impi cmd to slave device. 06 52 master read-write

NCSI Network Controller Sideband Interface

**8/26/15, Linux SVN study**

Co, check out,

commit, update revision

add, add file to repos

log, show revisions

co –r, restore revision

import, first import all files

refer, Subversion(SVN) 入門安裝設定教學 \_ FAQ Book\_files

**8/27/15 GIT learning**

Git clone/git init

Git pull/

Git add xxxx

Git branches/Git checkout

Git rebase xxx/Git merge xxx

Git push

**9/4/15 Uboot create & OEM build creations**

*Refer to /immtk1015/packages/README.nor*

*(FR61)>cd /home/matt/tmp*

*(FR61)>/immtk1015/packages/dissect\_nor imm2-8737.bin <=== imm2-8737.bin is dump from a health 8737 imm debug console*

*By using this command, imm2-8737****-vpd****.bin will be created in currect directory /home/matt/tmp*

*In order to prepare imm2-8373.bin (which is imm2-nor.bin), I connect to 8373 IMM console. (RTP PIT team has machine in the chassis)*

*spiutil raw imm -r -o 0 -l 2097152 -f /tmp/imm2-nor.bin*

*Next, I use command to inject imm2-8737****-vpd****.bin (8737's vpd data) and blank uboot file (IMM 52N build imm2-nor.bin which is from GSAx)*

*(FR61)>cd /immtk1015/packages*

*(FR61)>./inject\_vpd ./vpds/imm2-8737****-vpd****.bin ./vpds/imm2-nor.bin*

*Now imm2-imm2-8737-vpd.bin (which is 8737's nor.bin file is done)*

*Next, I burn it to my spi uboot chip by using Dediprog tool.*

*看一下 /imm/packages/README.nor 這個檔案 有一些說明*

*Mate notes: (OEM builds)*

*9/8 so far, Ziv and Vincent are responsible for build set up.*

*9/8 start to work with Maoli, 1. Add me in defect list of BDC Amy. 2. Weekly build after SDV. 3. Build plan with RDC if number is not enough. 4. Defect fixed should be handle by BDC after SDV. 5. Spec would be owned by BDC after SDV. 6. Where to get latest spec? sharepoint.*

**9/10/15 Miaoli**

10/8出Miaoli code, sent the mail to and YC Amy, cc James/Max

**9/11/15 Miaoli PM**

JC is iMM lead for Miaoli, Amy Zhao from China is Miaoli IMM Dev. PM

Li Da from Shanghai is iMM Core team lead for ME/PCH/CPU

SDV planar change should ask Amy. So far, 6L planar. SDV code would be 13D, but code would be 13H after 10/8.

ME/NM reading power consumption from CFF for understand system overall power

FPGA some power calculation for planar

Sean malon is iMM tech lead. Ed. is arch.

**9/14/15**

**FPGA image store in**

code\imm\security\securefs\images\fpga

ipmitool -H <IMMIP> -U USERID -P PASSW0RD raw 6 0x52 0xfd 0xe4 0 0

This is a cmd to read/write I2C master/slave bus.

In order to control iMM\_SCL6, bus id is SMB6/6, private bus->1, Channel # is F (always), so 0xFD = 1111 1101,

Slave address is E4 as Schematic spec.

**9/15/15**

Manifest is sensor.cpp file for trunk. Whenever there is a new project, we need manifest for trunk and branch to checkin both defect fixes.

If there have some fixes in SDC core team, need to make sure they checkin the fixes in future. Also have to make sure the branch is updated.

About flow chart of Dev. build:

1. Everson RDC will generate weekly build on Monday night. 2. Tuesday morning, our build engineer can start to build the dash/test build. (If it’s critical fix, better tell PA or Dev. to test it again with dash build)3. Then, the build will give to PIT team for PIT testing. 4. If PIT pass, we will inform our build engineer to build the official build and then forward it to PA/PM in last step.

**9/16/15**

Cmd learning in iMM debug login:

fpga –v

ipmitool power off

**9/17/15**

VPD should be done from MFG ODM. Use BIN file to burn in by offline.

PDSA is stored in emmc image. IMM only has MFG build workload. (to create a build with imm+dsa)

Uboot=VPD=SPI0, it’s a 2M RAM.

**9/21/15**

UBOOT=NOR

NAND=emmc

imm\fsoverlay\imm-rootfs\bin\init-xxxxx has first boot file (also has some backplane auto configuration setting, it’s TDC imm engineer works)

imm\fsoverlay\imm-rootfs\etc\platform\_list has all platform ID and init.sh

all platform will dynamic binding to lib/xxx.so file

ln -sf /lib/lib${IMM\_PLATFORM}.so /lib/libplatform.so

ln -sf /lib/lib${IMM\_FAMILY}.so /lib/libfamily.so

change vpd to fru (Roger/Ziv works)

xlate\_sys\_vpd\_2fru( ) in imm\bmc\src\framework\core\bmc\_fru\_vpd.cpp

**9/24/15 study thermal change table**