Flash Issues & Remedies

General Guidance

Many flash and SMC update failures can be addressed by simply updating to the latest version of Intel(R) MPSS and re-flash the card(s) again. Make sure to follow the steps listed in the README. However, if the flash version is very old (<375-5), update to 375-5 first before updating to a more recent version. In addition, don't mix a version of micflash from a previous release with a new MPSS release. The following is a list of some common issues that have been reported and how they might be addressed.

ISSUE 1

Symptom
SMC FW update returns CRC Error the first time.

Affected Releases/Flash Versions
All

Affected SKUs
All

Diagnosis
A "CRC error" may occur under two conditions, if the data transmitted to the SMC during an update has been corrupted, or the SMC has taken a longer time to boot after an update, and failed to send the updated CRC value to the MM Handler.

Remedy
1. Power cycle the host platform hosting the coprocessor.

2. Update Intel(R) MPSS to the latest release, and run micflash again.

3. If the issue persists, this indicates a corrupted data transfer. File a bug with the customer representative.

ISSUE 2

Symptom
SMC update fails with "SMC buffer size exceeded (0x1) on DFF C0".

Affected Releases/Flash Versions
All

Affected SKUs
5120D

Diagnosis

This error can occur due to a multitude of factors, ranging from hung SMC to a bug in the I2C driver which results in the Maintenance Mode Handler's failure to read the SMC's maximum buffer size.

Remedy

1. Check for issue 3 and proceed accordingly.

2. Update Intel(R) MPSS to the latest release and run the flash update again. If the issue persists, then file a bug with the customer representative.

ISSUE 3

Symptom

SMC's blue LED is static - either turned ON or turned OFF.

Affected Releases/Flash Versions

All

Affected SKUs

All

Diagnosis

SMC is non-responsive, thereby not executing its code nor performing its operations.

Remedy

1. Shut down the host computer and disconnect AC power

2. Reconnect AC power to the host computer and restart

3. Verify if the LED is blinking.

2. If the issue persists, return the coprocessor to Intel.

ISSUE 4

Symptom

SMC bootloader update fails with "Flash operation timed out".

Affected Releases/Flash Versions

All

Affected SKUs

All

Diagnosis

This can be caused due to an SMC hang.

Remedy

1. Check for issue 3 and proceed accordingly.

2. Update Intel(R) MPSS to the latest release. Power cycle the host platform and run the flash update again. If the issue persists, then file a bug with the customer representative.

3. If the SMC was updated to a FW version >1.0 from a FW version <0.91, and continues to be non-responsive, then return it to Intel.

ISSUE 5

Symptom
Card stuck at post code 40.

Affected Releases/Flash Versions
All Intel(R) MPSS releases prior to 2.1.4346-5 and containing a flash version < 375-5.

Affected SKUs
All

Diagnosis
This can occur if a flash attempt was made to a current version from a very old version .

Remedy
1. First update flash version to 375-5 (contact customer support to obtain this version), then make the update to a current version of flash.

2. If the issue persists, then file a bug with your customer representative.

ISSUE 6

Symptom
Need to know which flash version is installed.

Steps
1. Use the micinfo utility to obtain this information (if the card(s) are in the "online" state).

OR

2. Use micflash --getversion (if the card(s) are in the "ready" state).

ISSUE 7

Symptom

This error message appears when trying to flash cards:

```
$ sudo micflash –update

No image path specified – Searching: /usr/share/mpss/flash

Mic0: Flash image: /usr/share/mpss/flash/EXT_HP2_B1_0386-03.rom.smc
```

Affected Releases/Flash Versions

All

Affected SKUs

All

Diagnosis

This is a known issue (4846403) due to the Maintenance Mode Handler not being found.

Remedy

1. Re-install Intel(R) MPSS and run the command again.

ISSUE 8

Symptom

Users may encounter this type of error when trying to flash cards. This applies to the Linux* version of Micflash only.

```
$ sudo micflash –update

micflash: mic1: Failed to switch to maintenance mode: write:

/sys/class/mic/mic1/state: Input/output error
```

Affected Releases/Flash Versions

All

Affected SKUs

All

Diagnosis

Target MIC card is not in ready mode.

Remedy

Invoke "`sudo micctrl –r micX`" from command line (Note: X is an integer number (0, 1, 2, 3, etc.) that identifies each coprocessor installed in the system).

ISSUE 9

Symptom

User may encounter this type of error with invocation of any MICFlash command. This applies to Microsoft(R) Windows version of MICFlash only.

```
$ micflash –update

Intel(R) Xeon Phi(TM) Coprocessor stack initialization failed
```

Affected Releases/Flash Versions

All

Affected SKUs

All

Diagnosis

This is due to the failure of the host driver to initiate Maintenance Mode.

Compatible RASMM.elf images are missing from "C:\Program Files\Intel\MPSS\drivers\micx64\" folder.

Remedy

Reinstall the Intel(R) MPSS package or upgrade to latest MPSS package.

ISSUE 10

Symptom

User may encounter this type of error when trying to flash cards. This applies to Microsoft(R) Windows version of MICFlash only.

```
$ micflash –update

Intel(R) Xeon Phi(TM) Coprocessor – 0

Flash update: Compatibility image check failed; Reason: Compatible flash image
not found

Device status: HW ready
```

Affected Releases/Flash Versions

All releases on or before Driver version 3.1 / Flash: 386-3

Affected SKUs

C0 & B0 7120A, C0 3120P

Diagnosis

The Microsoft(R) Windows version of MICFlash in releases prior to 3.1 does not recognize all the supported SKUs. This support was added in MICFlash in version 3.1.1.

Remedy

Upgrade to latest Intel(R) MPSS release.

ISSUE 11

Symptom

Command does not finish after more than 10 minutes.

```
$ micflash -GetVersion -device 0
```

Affected Releases/Flash Versions

All

Affected SKUs

All

Diagnosis

This is a known issue (4846403) due to the Maintenance Mode Handler not being found.

Remedy

1. Re-install Intel(R) MPSS and run the command again.