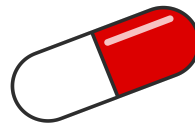
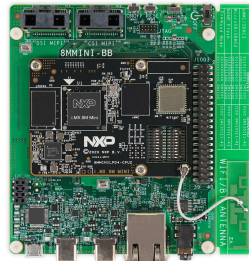


NXP i.MX8M Mini EVK Capsule Update



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Principles

We need to prepare an ACS image with two capsules and setup the board.

Then we can update the firmware using the UEFI capsule update service, going from one firmware version to the other:

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Prerequisites

We need two capsules binaries, capsule1.bin and capsule2.bin, with different version strings (different compile times is sufficient).

Step by step instructions

Prepare the ACS image with capsules

The [ACS-IR prebuilt image v21.07_0.9_BETA](#) contains the UEFI Shell and CapsuleApp.efi executable.

Copy the two capsules binaries at the root of the first partition.

Setup the board

Install firmware on the eMMC boot partition:

```
u-boot=> mmc dev 2 1
u-boot=> mmc write ${loadaddr} 0x42 0x1B0C
```

Make the eMMC boot from the boot partition:

```
u-boot=> mmc partconf 2 0 1 0
```

Set the switches to boot from eMMC:

SW1101	0110110001
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SW1102 0001010100

Create an ESP on the eMMC user data (this can be done from Linux using `gdisk` or `fdisk` for example).

Setup the `dfu_alt_info` U-Boot environment variable:

```
u-boot=> setenv dfu_alt_info 'mmc 2=1 raw 0x42 0x2000 mmcpart 1'
```

Setup EFI environment:

```
u-boot=> efidebug boot add 0 Boot0000 mmc 2:1 capsule1.bin
u-boot=> efidebug boot next 0
u-boot=> setenv -e -nv -bs -rt -v OsIndications =0x04
```

Perform capsule update

From the UEFI Shell, do:

```
FS1:\> EFI/BOOT/app/CapsuleApp.efi capsule1.bin
```

This should update the firmware with the first capsule. The firmware version can be verified after reboot at the U-Boot prompt:

```
u-boot=> version
```

The operation can be repeated with the second capsule, and again with the first capsule.

Troubleshooting

The following U-Boot commands can help debug issues:

```
u-boot=> efidebug capsule update -v ${loadaddr}
u-boot=> efidebug capsule disk-update
```

The following UEFI Shell commands can help, too:

```
FS1:\> dmpstore
FS1:\> EFI/BOOT/app/CapsuleApp.efi -P
FS1:\> EFI/BOOT/app/CapsuleApp.efi -E
```

See Also

- [SystemReady IR](#)
- <https://u-boot.readthedocs.io/en/latest/develop/uefi/uefi.html>
- [PJ03206-393 - Getting issue details...](#) STATUS
- <https://github.com/NXPmicro/mfgtools>
- [NXP i.MX8M Mini EVK Firmware](#)
- https://github.com/ARM-software/arm-systemready/tree/main/IR/prebuilt_images/v21.07_0.9_BETA
- https://git.linaro.org/people/paul.liu/systemready/build-scripts.git/tree/docs/iotgateimx8_capsule_update.md