Changes in the boot loaded to disable NMI interrupt

PTA4 in Kinetis k64 is designed to work with NMI attached to gpio PORT A pin 4. ( PTA4)

When this pin will be go to 0 , the processor is designed to NMI jump to NMI handler.

The problem introduce is when this bit was pull down and there for the processor was not starting.

Two options can be made.

1. Pull up PTA4 10k Ohm - hardware change
2. Disable NMI interrupt at boot time.

Changing NMI is done in the boot flash config area in the startup section of

startup\_MK64F12.S

Original code:

/\* Flash Configuration \*/

**.section** .FlashConfig, "a"

**.long** 0xFFFFFFFF

**.long** 0xFFFFFFFF

**.long** 0xFFFFFFFF

**.long** 0xFFFFFFFE

Change require to disable NMI ( NMI\_DIS)

/\* Flash Configuration \*/

**.section** .FlashConfig, "a"

**.long** 0xFFFFFFFF

**.long** 0xFFFFFFFF

**.long** 0xFFFFFFFF

**.long** 0xFFFFF9FE

The flash config will be written by the processor before everything starts and will configure the FOPT register internally.

The result is that we don’t jump to NMI interrupt handler even if the PTA4 is grounded.

