Eliminate unnecessary space in tfm_s.bin

Sherry Zhang
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What’s the problem?

- The veneers section is placed at a fixed address so that the secure image can be upgraded independently.
- The end of tfm code (except veneers) varies depending on build configurations.
- So empty space is reserved. tfm_s.bin always has the same size in different configurations (debug mode, release mode, profile small, medium and so on).

Fixed Value: S_CODE_START

Unfixed Value: end of tfm code except veneers

Fixed Value: CMSE_VENEER_REGION_START

vectors
startup.text
...
end of tfm code

Empty space

.gnu.sgstubs*(veneers section)

Low address

tfm_s.bin

High address
Proposed solution

- Move the veneers section to right after the vector section.
- Size of vector table is fixed for each platform. So, the veneers section is still fixed for each platform.

Fixed Value: S_CODE_START + sizeof(vectors)
Comparison of size of tfm_s.bin on AN521

- 70 percent reduction with ARMCLANG compiler.
• https://review.trustedfirmware.org/c/TF-M/trusted-firmware-m/+/12620/
• IAR compiler?
Thank You
Danke
Gracias
谢谢
ありがとう
Asante
Merci
감사합니다
धन्यवाद
شكرًا
tוודה