



arm

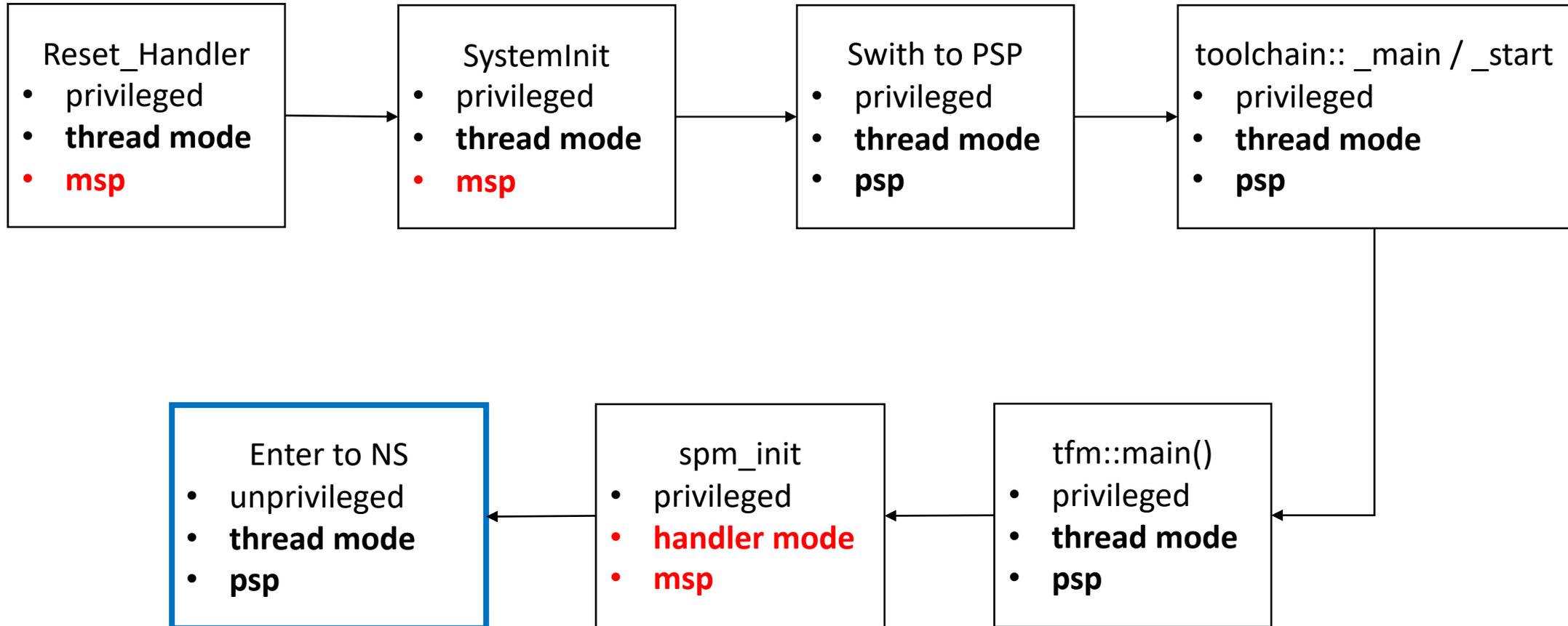
Trusted Firmware - M  
Initialization Entry  
Enhancement

Summer Qin  
2020.9.17

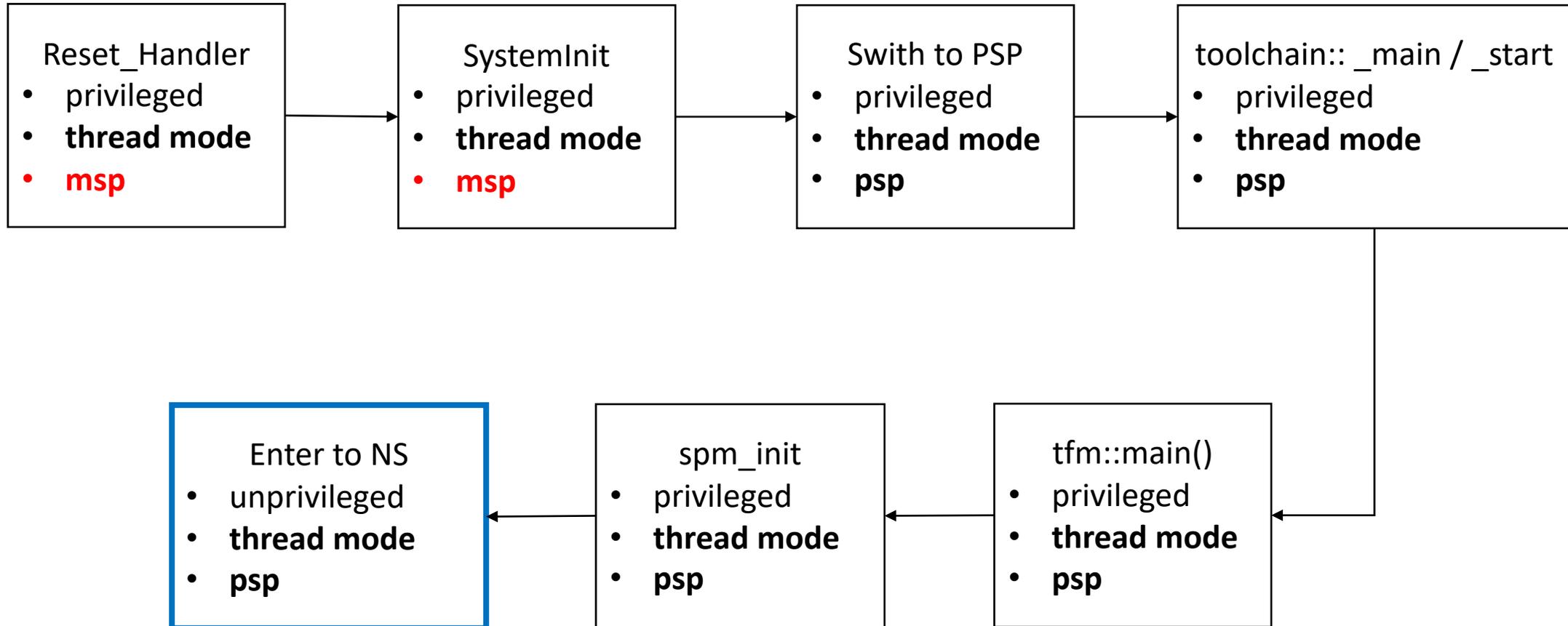
# Contents

- The existing initialization flow
- The enhancement

# Existing initialization entry flow - IPC



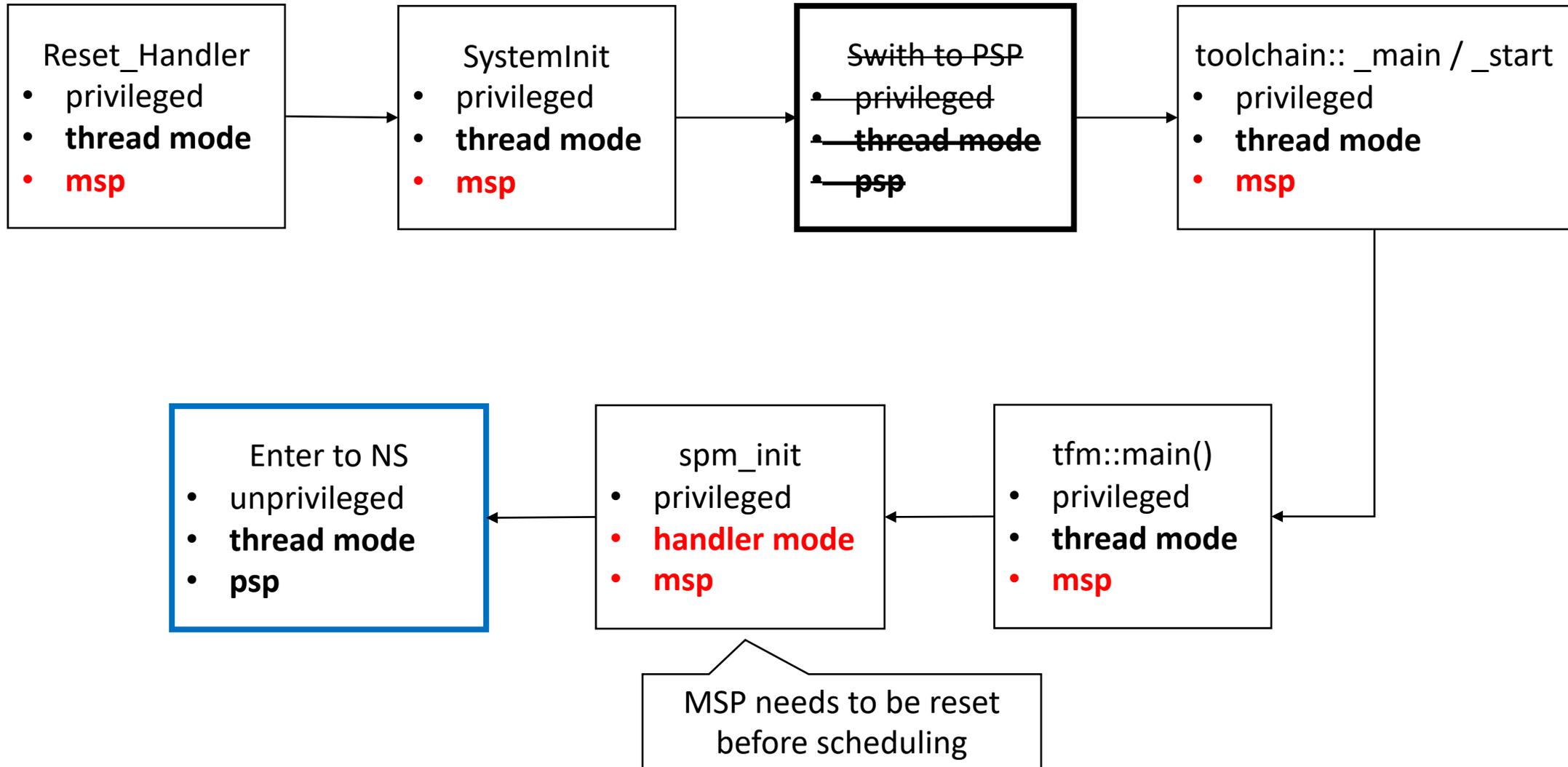
# Existing initialization entry flow - library



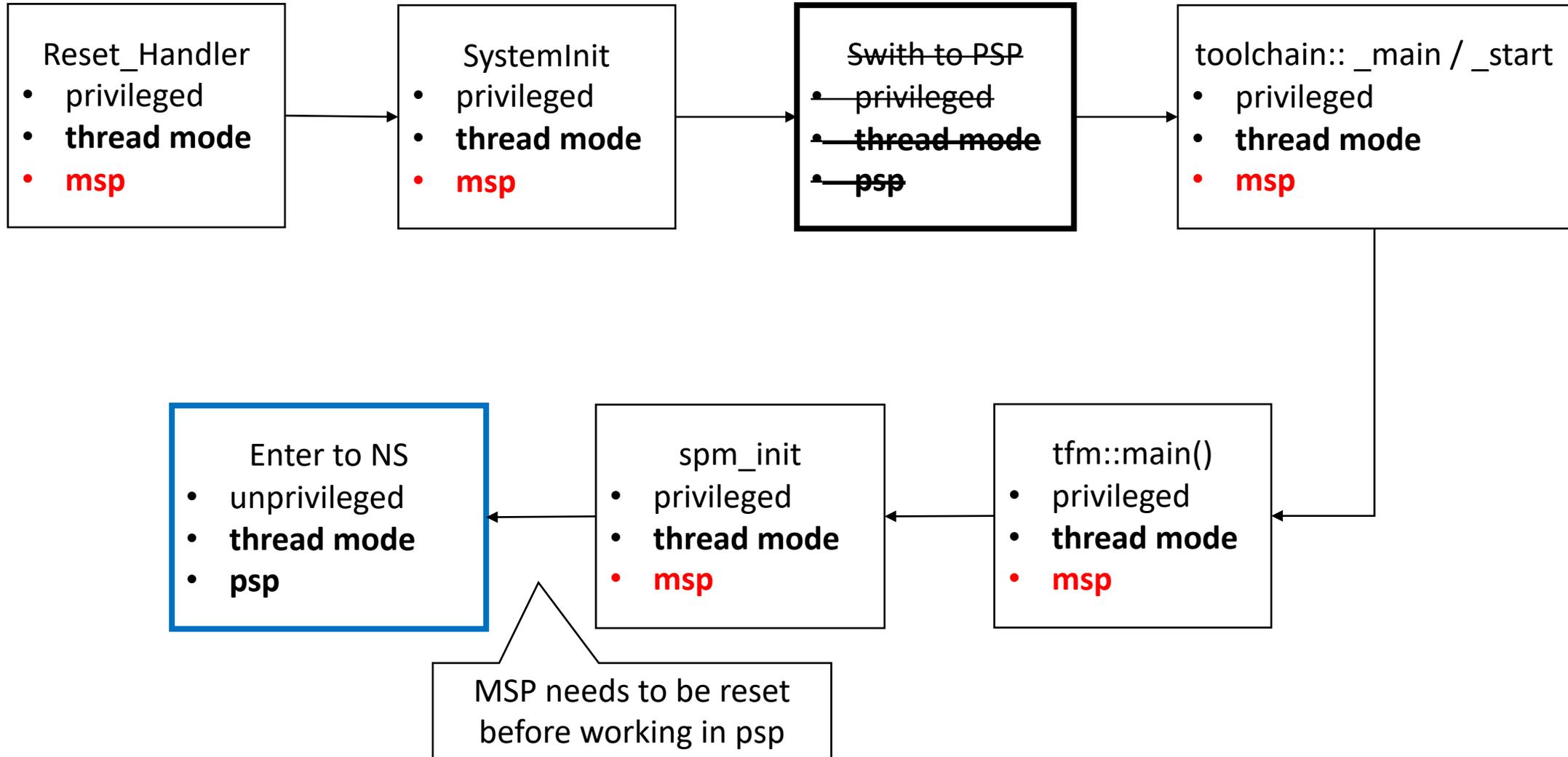
# Existing initialization analysis

- Booting belong to scope of SPM, while SPM should work inside a dedicated stack which should never be shared with others.
  - ARM\_LIB\_STACK being reused by booting code and non-secure partition
- Toolchain would set ARM\_LIB\_STACK into SP before launching C code
  - Toolchain regard the SPM as the 'program' and SPM is using MSP while booting, so ARM\_LIB\_STACK should represent the MSP value.
- The customized modification for switching to PSP adds un-natural modification on default platform sources for M-profile platform.
  - This switch is unnecessary during booting.

# Enhanced initialization entry flow - IPC



# Enhanced initialization entry flow - library



arm

Thank You

Danke

Merci

谢谢

ありがとう

Gracias

Kiitos

감사합니다

धन्यवाद

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