Mailbox Update
Follow-up

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Trusted Firmware-M Components

Developer API by encapsulating FF-M Interface
TFM Implementation-defined Interface
Runtime Interface
Firmware Framework-M Interface
Changes:
- The mailbox hardware is controlled through MMIO.
- The NS memory check is duty of Mailbox NS Agent now.
- The NS Agent API works asynchronously.
- The Customized NS Agent API supports NS Client identification.
- It is possible to have multiple Mailbox NS Agents.
- It is expected to be ARoT to isolate 3rd party RPC libraries from PRoT.
while(1) {
    signals = psa_wait(WAIT_ALL, BLOCK);

    if (signals & MAILBOX_IRQ) {
        protocol_parse_inbox();
        agent_psa_call();
    }

    if (signals & AGENT_API_ACK) {
        create_protocol_reply();
        protocol_send_reply();
    }
}
Mailbox NS Agent Plans

- Convert dual-core logic into partitions.
  - PSoC already did this.
- Decouple dual-core code out of SPM
  - Dual-core memory check
  - Interrupt handling logic
- Implement the proposed Agent API.

Initial docs: https://tf-m-user-guide.trustedfirmware.org/technical_references/design_docs/mailbox_ns_agent_update.html
Still open for updates.
Thank You
Danke
Gracias
Grazie
谢谢
ありがとう
アサント
Merci
감사합니다
धन्यवाद
Kiitos
شكرًا
ধন্যবাদ
תודה