

Use cases

Connect
 Read data
 Write data
 Config Event driven data logging
 Event driven data logging
 Cal paging
 Config Event driven data stimulation
 Event driven data stimulation

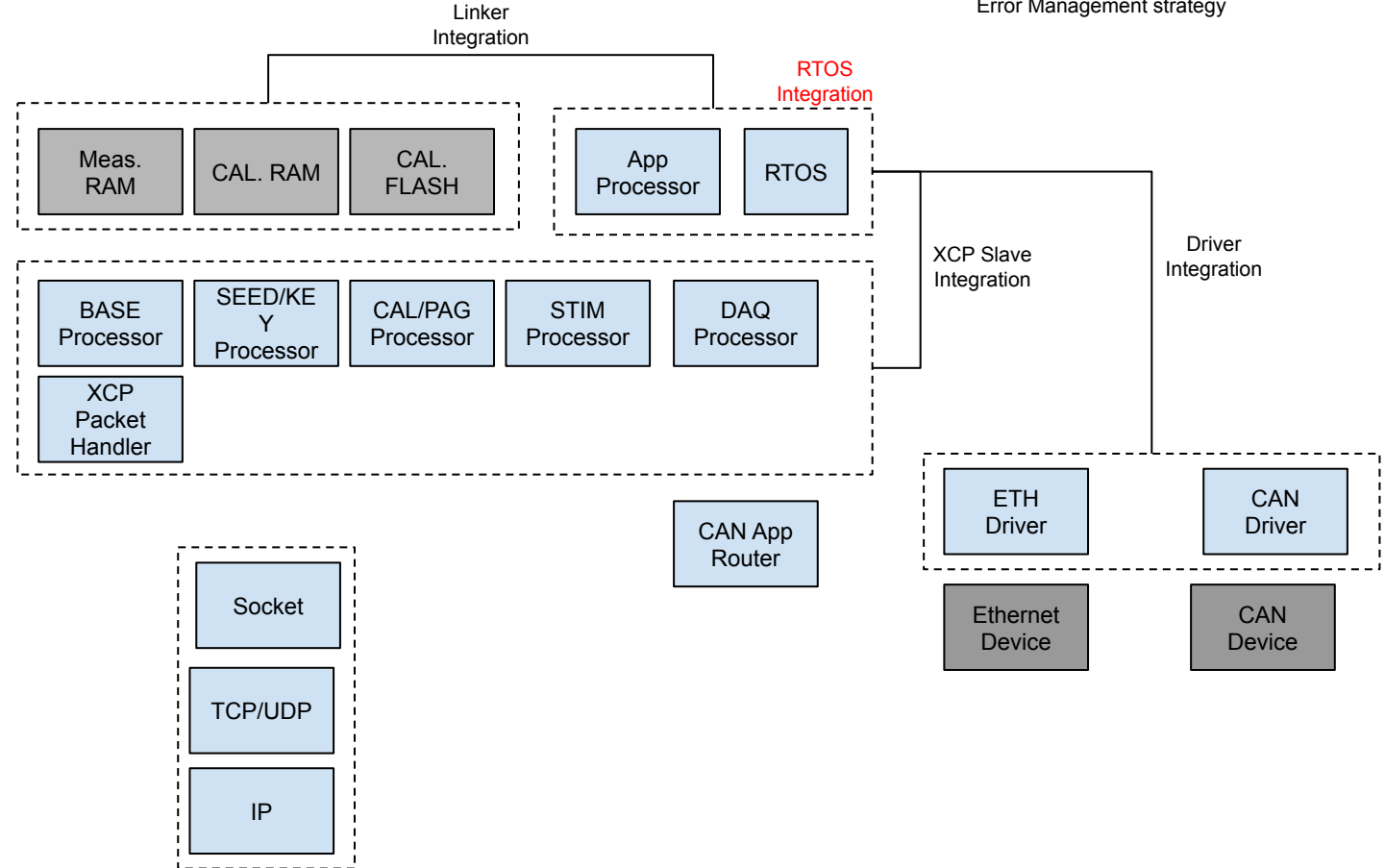
Negative case

Error Management strategy

Next Step

FreeRTOS port to Tiva Cortex M4
 Linker definition
 10 ms data sampling
 1000 ms data sampling
 XCP Processing
 Cortex M4 CAN driver integration
 XCP Slave integration (focus on top use cases)
 XCP Master Bring up

Performance evaluation of DAQ
 Cortex M4 Ethernet driver integration
 AUTOSAR Pointer method
 Optimization and correctness of meeting timing requirements



References:

FreeRTOS mem footprint:
<https://www.freertos.org/FAQMem.html#ROMUse>
 Fully Preemptive RTOS Concept of operation:
<https://www.freertos.org/tutorial/solution2.html>
 FreeRTOS demo for TI products:
<https://www.freertos.org/a00090.html#ARMv8-M>
 Porting or Modifying a FreeRTOS prj:
<https://www.freertos.org/porting-a-freertos-demo-to-different-hardware.html>
 M4F based TI HW:
<https://www.ti.com/tool/EK-TM4C123GXL>