



Discus for GSoC proposal

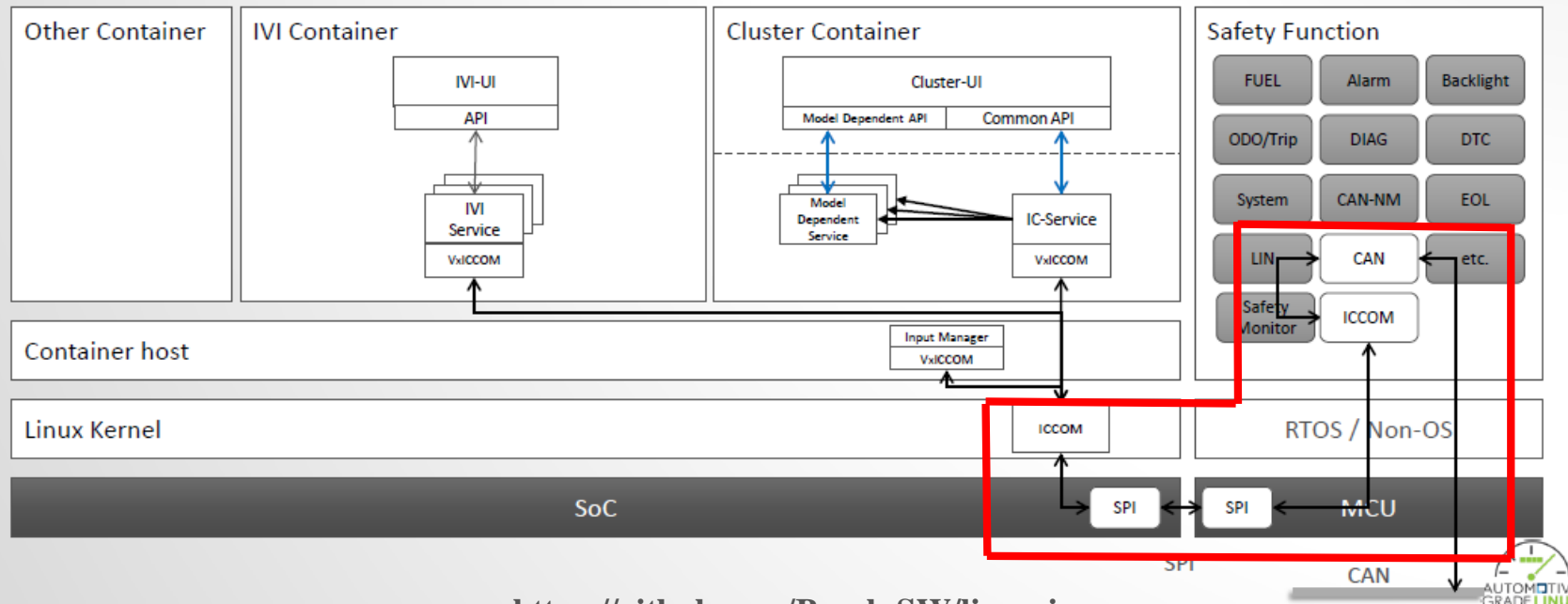
# IC EG Proposal

- Create example for the RT-OS part in IC-EG architecture.

## Data Flow – 1. ICCOM

ICCOM is responsible for vehicle signal handling which transferred from MCU. (i.e. CAN)

- ICCOM socket shall be directly opened in application container, and not in the container host.
- Keeping advantage of peer to peer communication shall reduce latency and complexity.



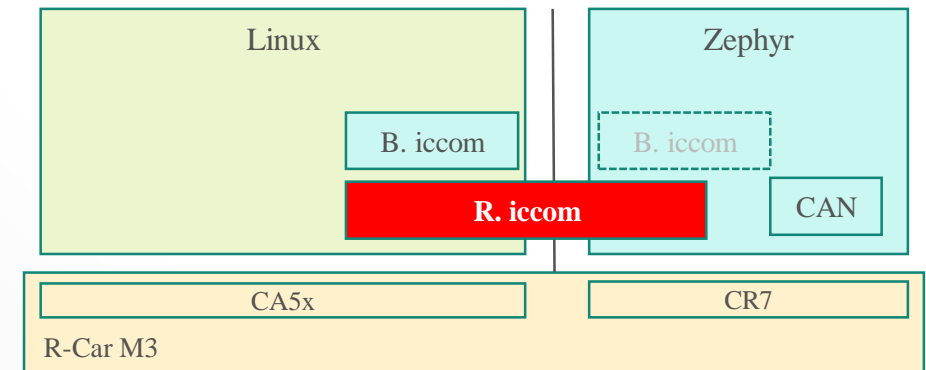
<https://github.com/Bosch-SW/linux-icom>

# Discussion point

- What RTOS use?
  - In Previous discussion, will use NuttX or Zephyr. But...

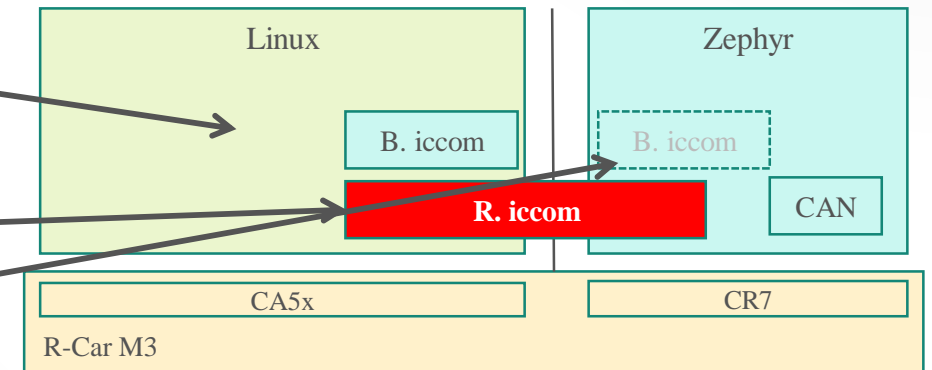
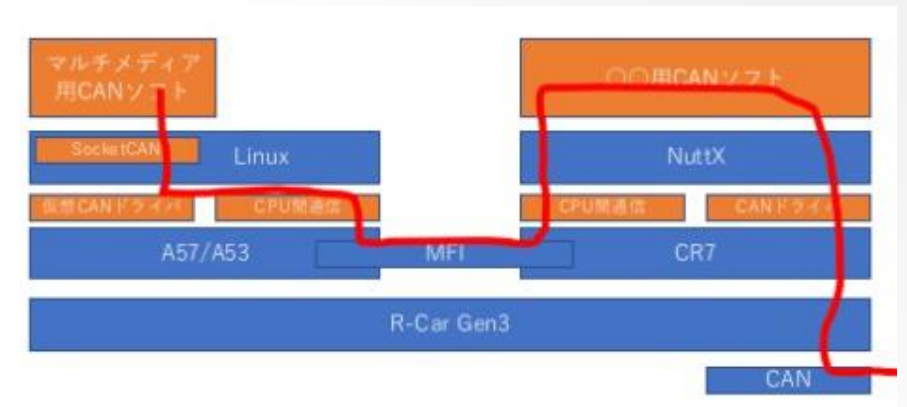
RTOS	Availability
NuttX	Not Available (R-Car port is lost...)
Zephyr	Will Available (check to date by Kurokawa-san now)
Others..(ex. Toppers)	Need to port in this project. It's too heavy..

- We can choice Zephyr only now...
- Result of our discussion with Tanikawa-san, Kurokawa-san, Haraki-san, Taguchi-san and others.
  - Can we get device driver?
    - Can get linux side Bosch iccom middle ware.
    - Can't get Renesas iccom driver, it's proprietary software...
    - Can get Zephyr side CAN driver.
  - Have a another issue?
    - Too heavy to GSoc in this year.
      - Up to 180h only...



# Estimate to working time

- This estimate based on existing Kusakabe-san work
  - <https://www.slideshare.net/YuichiKusakabe/rcar-h3nuttx>
    - Japanese only...
- It's require to..
  - NuttX porting (case of kusakabe-san)
    - Research for how to port NuttX to R-Car H3.
      - 20 day (May not need)
    - Implementations
      - 20 days (May need)
        - This work is including reworking for linux side implementations. ex. fix to device conflict.
  - Renesas iccom (case of kusakabe-san)
    - Research for how to port Renesas iccom.
      - 5 days (May need)
    - Implementations
      - 5 days (May need)
  - Others
    - Bosh iccom for Zephyr
      - May need 10 days.
- This work may require 40 days
  - This work require to 320h.....Too heavy...



# My conclusion

---

- Give up to this proposal in this year.
- To be discuss in next year.