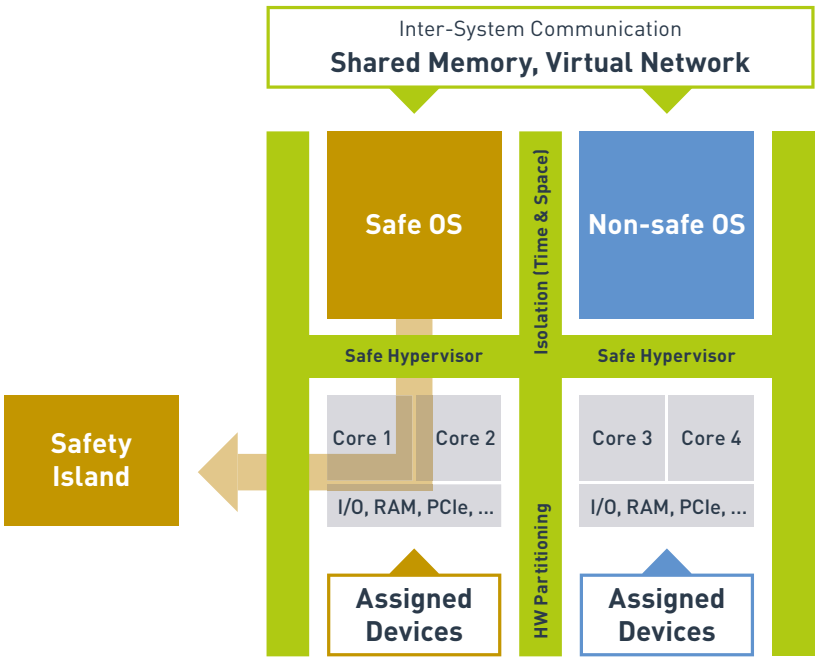
REAL-TIME SYSTEMS

RTS Safe Hypervisor

Today's and future applications offer increasing functionality, including direct interaction with humans. Functional safety and cybersecurity features of the systems used for these applications helps to protect users from harm. In addition, operators can utilize the full potential of their appliances, while at the same time confidently work in a well-defined and safe environment. The RTS Safe Hypervisor allows real-time virtualization on x86 platforms with implemented functional safety and cybersecurity standards. This pre-certified solution helps to accelerate time to market, reduce downtime, and save costs.

Safety and cybersecurity features

- Safety- and non-safety-related software on same hardware platform
- Integrated safety or external safety island with pass-through
- Exclusive device assignment with PCI pass-through
- Spatial and temporal isolation for determinism without interferences
- Easy and secure communication via Shared Memory and Virtual Network
- Update of non-safety-related software without affecting safety-critical programs



Your benefits

- Short time-to-market with pre-certified solution
- Less costs with mixed criticality on one simplified platform
- Easy use of COTS devices, drivers, and software stacks
- Future-proof development with backward-compatible software
- Hard real-time performance with secure OS separation
- Full support of Intel® Atom™, Intel® Core®, Intel® Xeon®, and FuSa concept

REAL-TIME SYSTEMS

Certification

- Elkhart Lake (Intel® Atom™):
  pre-certified with integrated Safety Island in SOC
- Tiger Lake (Intel® Core® / Intel® Xeon®):
  certification with External Safety Island and
  Functional Safety External Design Package (FSEDP)

Standard compliance

- IEC 61508 SIL 3
- ISO 13849 PLe
- IEC 62304 Class C
- EN 50128 SIL 4
- IEC 62443-4
- ISO/SAE 21434

Our partners

intel partner Titanium

intel Software Partner

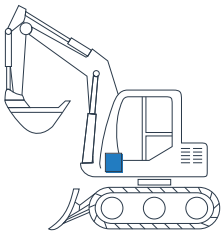
Supported operating systems

BlackBerry QNX Neutrino

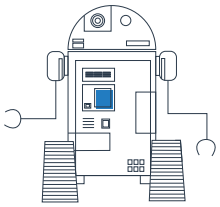
Zephyr™

BlackBerry QNX OS for Safety

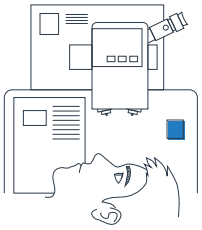
Applications



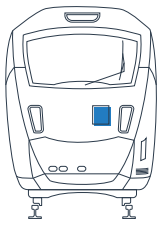
Heavy machinery



Robotics



Medical



Transportation

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