

Autonomous S/W

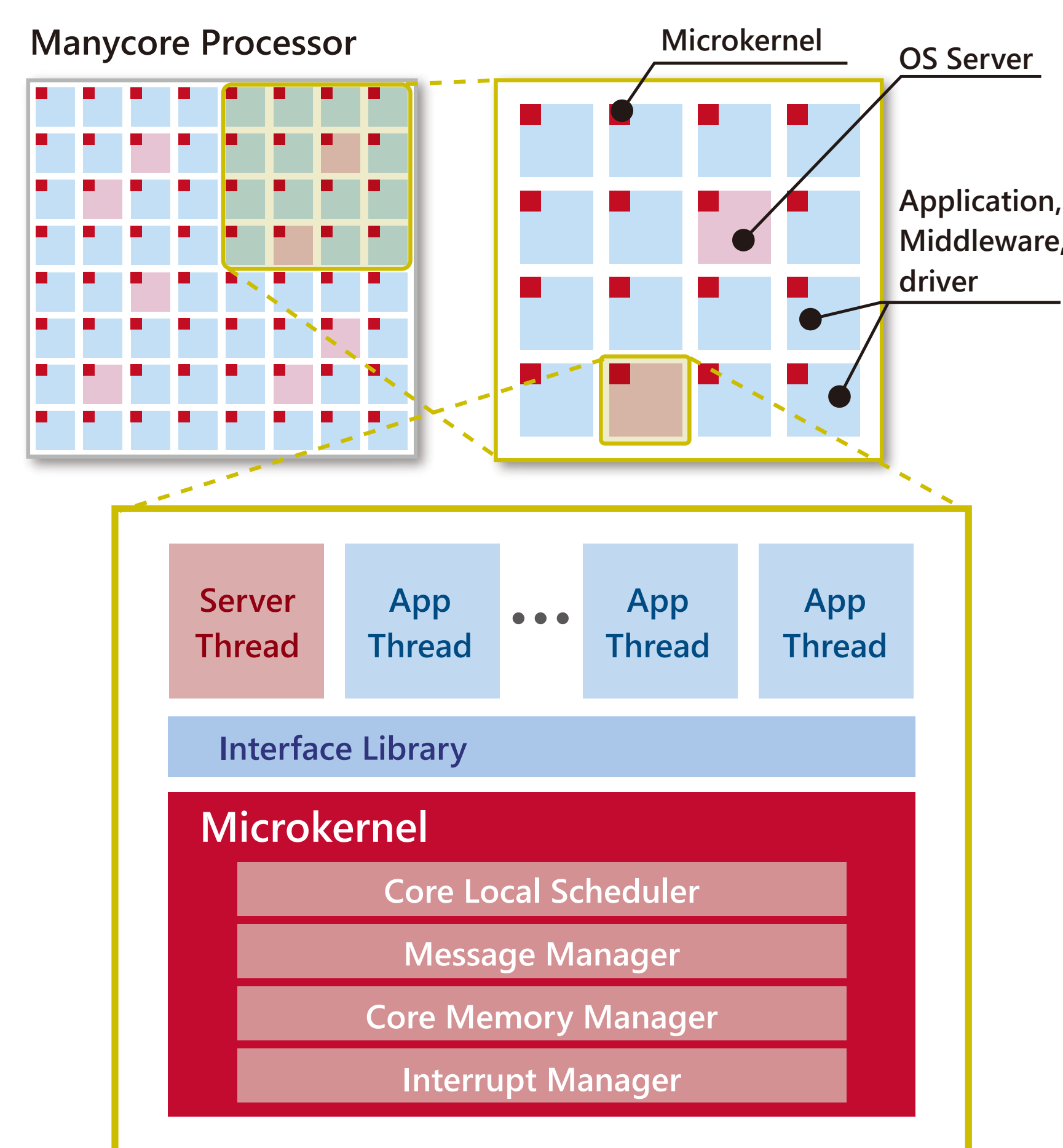
Scalable real-time OS (AUTOSAR / POSIX)



The World's First Commercial Many-Core Real-time Operating System

Scalability

- **Determinism and throughput :**
from hard real-time processing to high throughput SMP
- **Distributed SOA :**
platform software components are run as 'services', allowing standardization and reuse over different system designs
- **Hardware architecture :**
supports single core to multi-manycore, including multi-chip-heterogeneous hardware



Performance

- The same **hard-realtime** capability as the legacy single-core RTOS
- The Microkernels and OS services run in parallel in multi-manycore systems, providing **higher throughput**, compared to a legacy single kernel OS with kernel locks

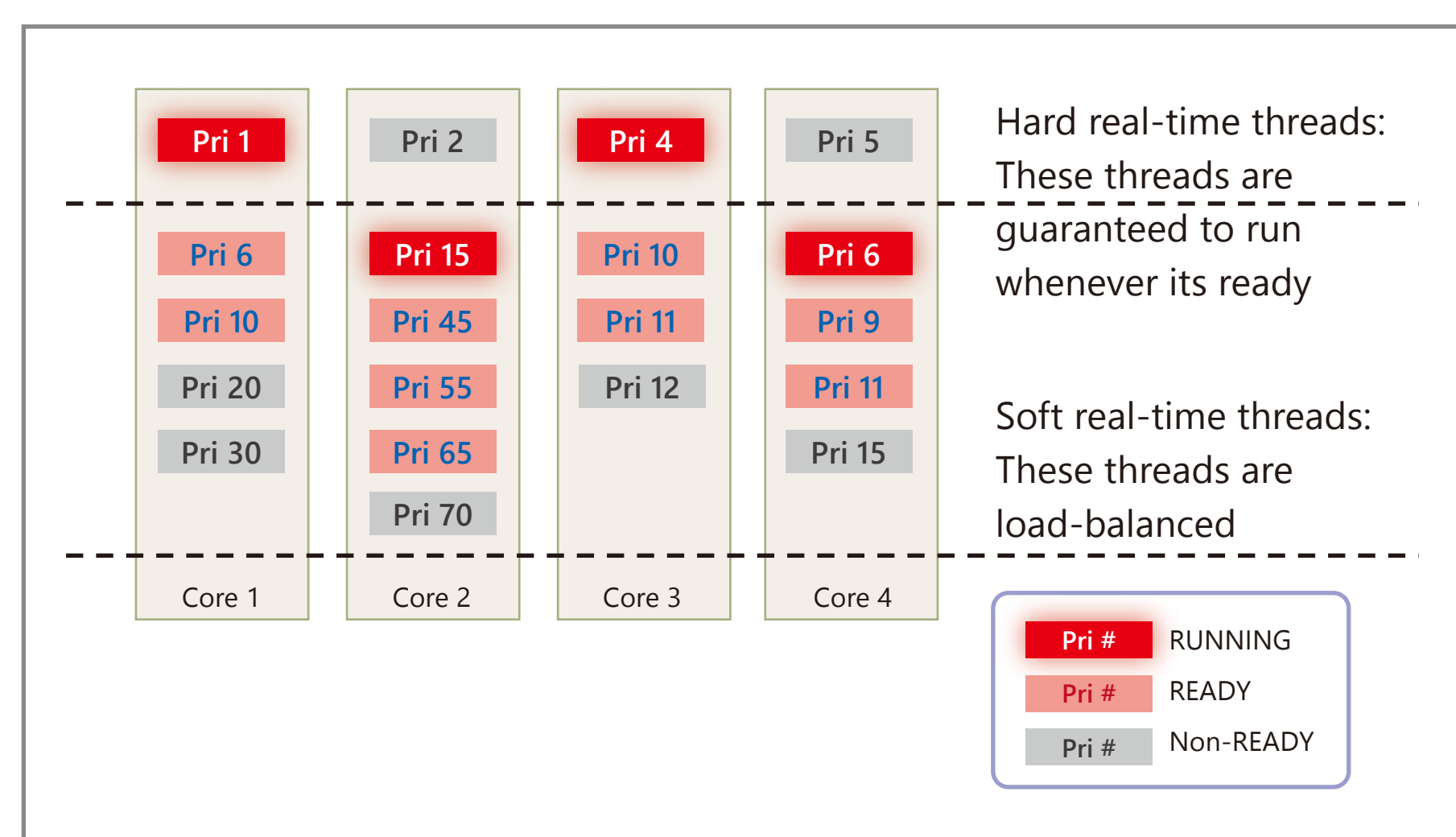
Open standards

- AUTOSAR OS API for microcontrollers and **full POSIX** API for high-end processors
- Supports both **AUTOSAR Classic Platform** and **Adaptive Platform**

Safety and security

- Developed with the **functional safety** standard compliance
- Independent microkernel architecture offers '**separation of concerns**'

Semi-priority based scheduling



eMCOS scalable RTOS – heterogeneous compute example

