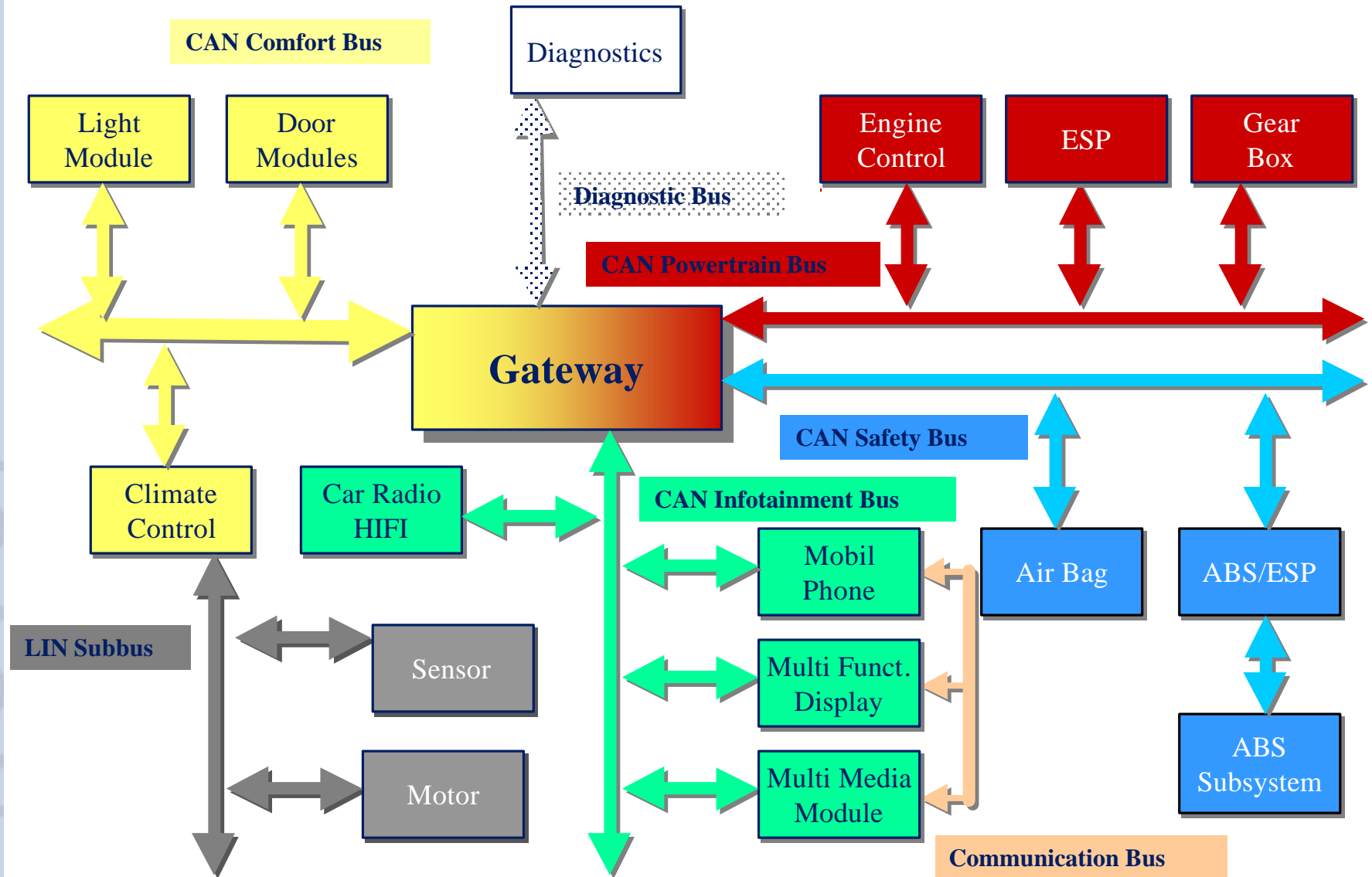
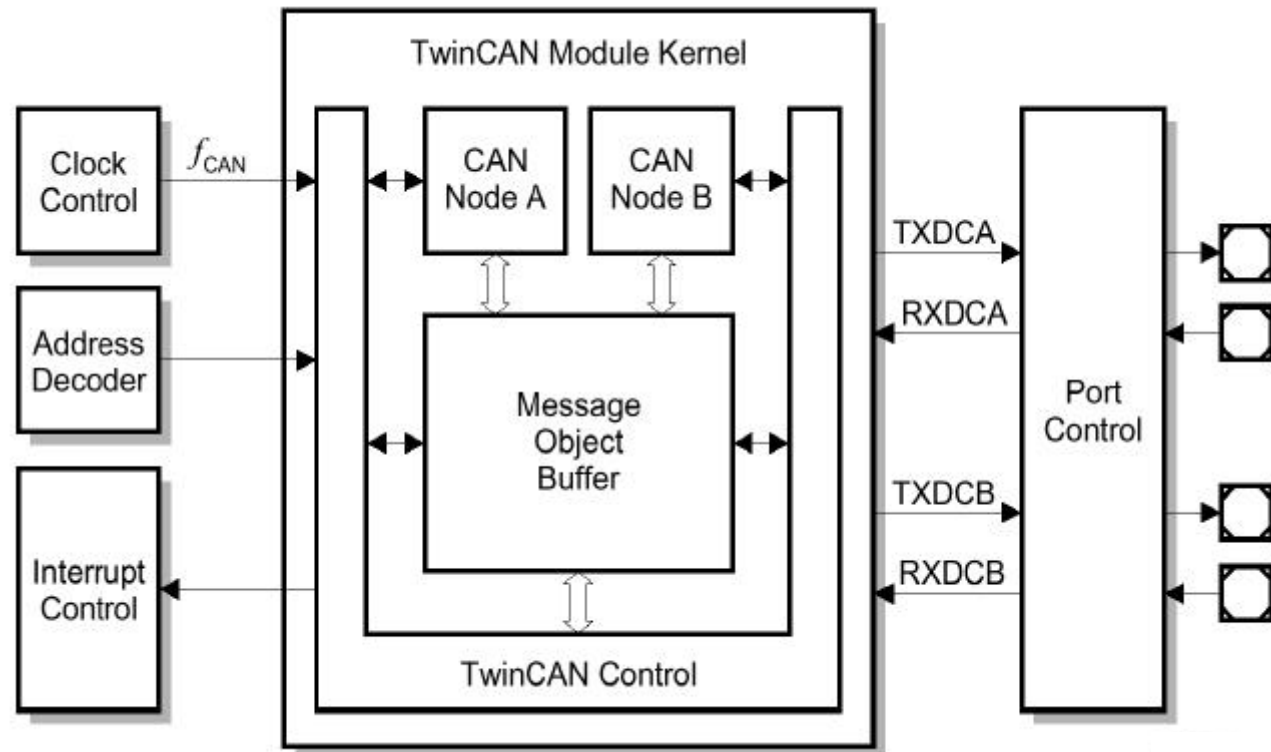


Structure of future Vehicle Networks



Never stop thinking

TwinCAN - Block Diagram

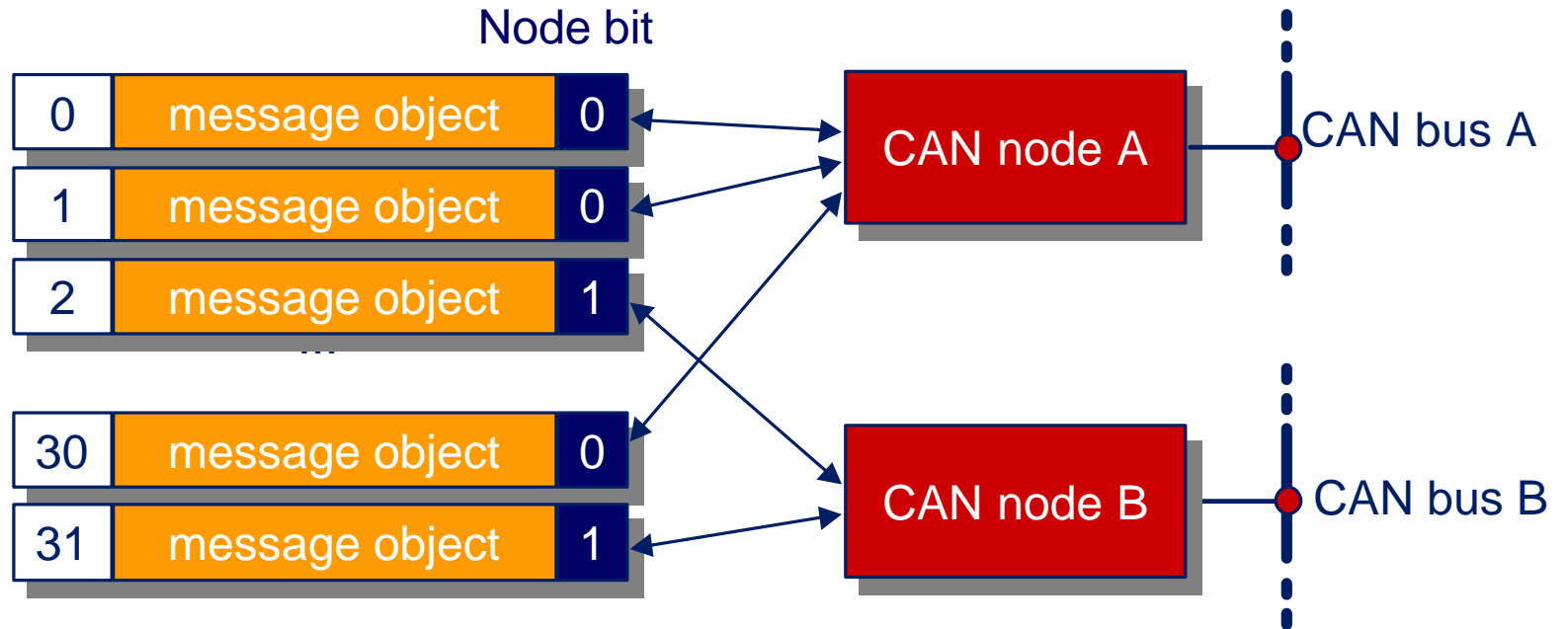


TwinCAN Features - Overview

- Full CAN functionality
(compliant with CAN specification V2.0 B active)
- Handling of frames with 11-Bit and 29-Bit identifiers
- Up to 1Mbaud data transfer for each CAN-node
- 2 independent CAN-nodes implemented on one module
- Hardware programmable gateway support
- Hardware, message-based, scalable FIFO support
- 32 independent message objects shared by both CAN nodes
- Acceptance filtering for each message object
- Flexible & powerful interrupt generation
- CAN analyzing mode (comparable to“ CAN listen mode“)

TwinCAN node allocation

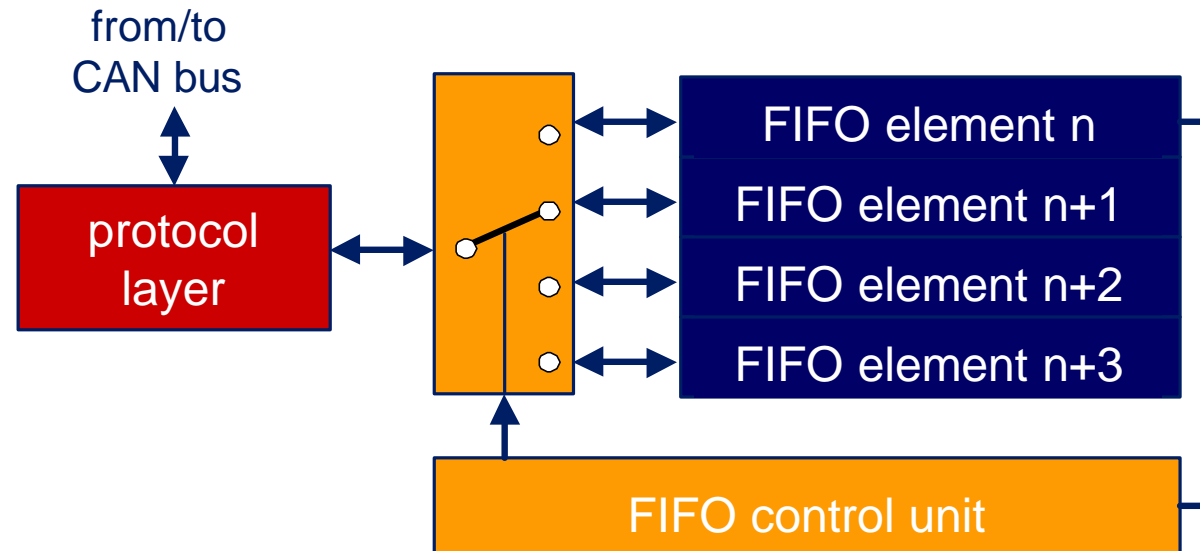
- ▶ Both CAN nodes share the 32 message buffers



- ▶ Message objects contain node selection bits
 - programmable allocation for each message object
 - free partitioning (nodeA/nodeB, e.g. 16MOA/16MOB or 2MOA/30MOB)

TwinCAN FIFO features

- ▶ FIFO mechanism for message buffering



- ▶ Message objects can be concatenated to FIFOs
 - 2, 4, 8, 16 or 32 stage FIFOs supported (programmable)
 - available for transmission or reception (programmable)
 - improved real-time behaviour in case of bursts of messages
 - simplified access to sequences of messages