



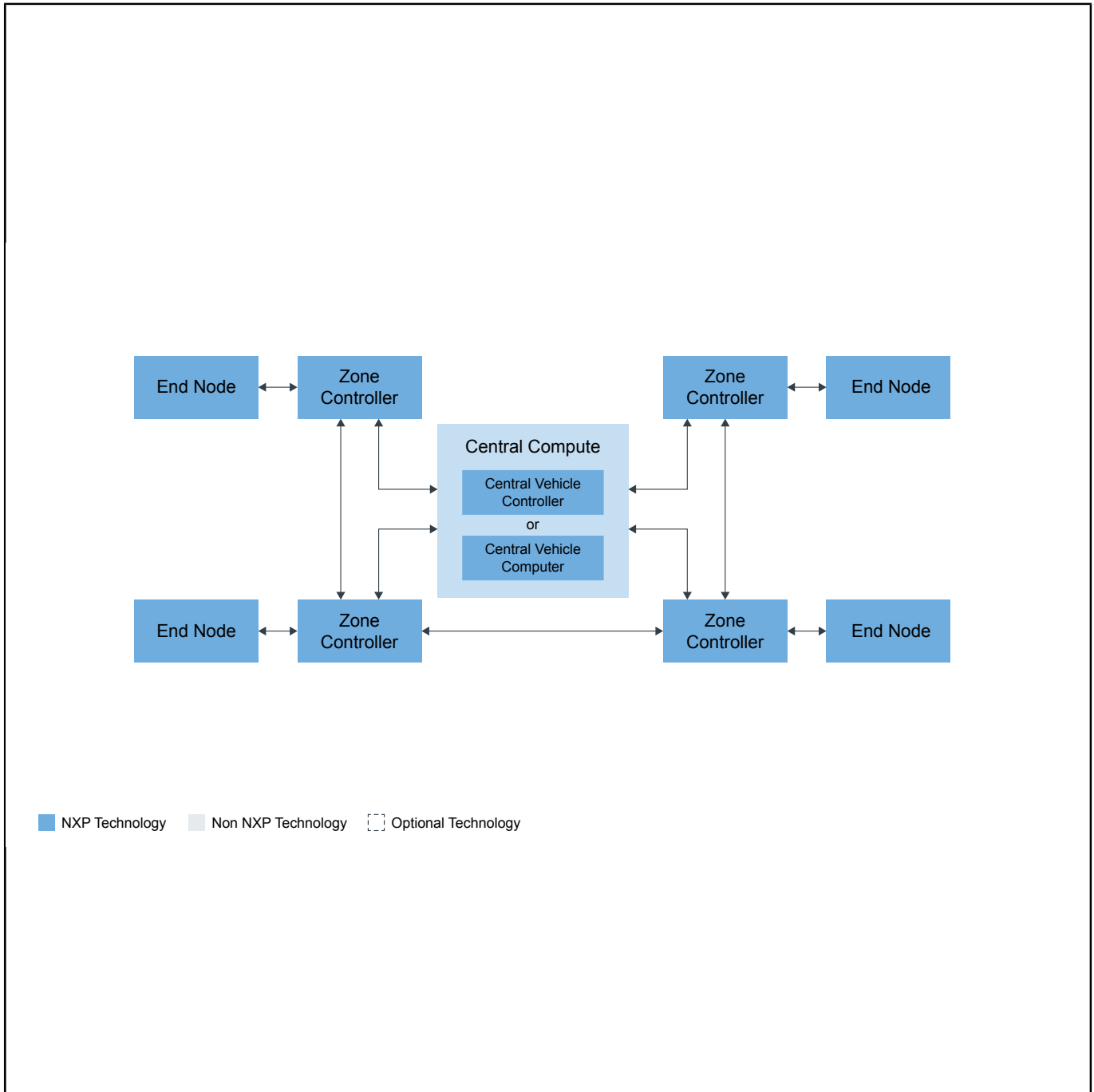
Central Compute

Last Updated: Mar 27, 2024

Central compute is the centralized consolidation of vehicle control, management and services processing in a software-defined vehicle (SDV). It provides automakers a consistent way to update, customize and reconfigure vehicle functionality in a safe and secure manner.

Central compute can include a central vehicle controller, which focuses on real-time applications and a central vehicle computer, which addresses applications processing.

Zonal Architecture Block Diagram



Recommended Products for Zonal Architecture

<p>Zone Controller</p>	<ul style="list-style-type: none"> • S32K3: S32K3 Microcontrollers for Automotive General Purpose • S32Z2: S32Z2 Safe and Secure High-Performance Real-Time Processors • S32E2: S32E2 Safe and Secure High-Performance Real-Time Processors with Actuation Support • S32G3: S32G3 Processors for Vehicle Networking • S32G2: S32G2 Processors for Vehicle Networking • VR5510: Multi-Channel (9) PMIC for S32G Processor – 8 High Power, 1 Low Power, Fit for ASIL D Safety Level • PF53: 12 A / 8 A / 15 A Core Supply Regulator with AVP and Watchdog • FS26: Safety System Basis Chip with Low Power, for ASIL D Systems • PF5030: Multi-Channel PMIC for Automotive Applications • SJA1110: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs • FS86: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D • TJA1120: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver • TJA1104: TJA1104, MACsec Enabled ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver
<p>Central Vehicle Computer</p>	<ul style="list-style-type: none"> • S32N Vehicle Super-Integration Processors: S32N Vehicle Super-Integration Processors • S32G3 Vehicle Networking Reference Design • GoldBox 3 Vehicle Networking Development Platform • GOLDVIP: S32G Vehicle Integration Platform (GoldVIP) • VR5510: Multi-Channel (9) PMIC for S32G Processor – 8 High Power, 1 Low Power, Fit for ASIL D Safety Level • PF53: 12 A / 8 A / 15 A Core Supply Regulator with AVP and Watchdog • TJA1120: TJA1120, ASIL B Compliant Automotive Ethernet 1000BASE-T1 PHY Transceiver • TJA1104: TJA1104, MACsec Enabled ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver • SJA1110: Multi-Gig Safe and Secure TSN Ethernet Switch with Integrated 100BASE-T1 PHYs
<p>End Node</p>	<ul style="list-style-type: none"> • S32M2: S32M2 Integrated Solution for 12V Motor Control • S32K3: S32K3 Microcontrollers for Automotive General Purpose • S32K1: S32K1 Microcontrollers for Automotive General Purpose • FS24: Safety Mini CAN FD SBC for Automotive Applications Fit for ASIL-B • FS23: Safety System Basis Chip (SBC) Family with Power Management, CAN and LIN • FS26: Safety System Basis Chip with Low Power, for ASIL D Systems • TJA1463: CAN Signal Improvement Capability Transceiver with Sleep Mode • TJA1103: TJA1103, ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver • TJA1104: TJA1104, MACsec Enabled ASIL B Compliant Automotive Ethernet 100BASE-T1 PHY Transceiver

View our complete solution for [Central Compute](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2024 NXP B.V.