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#### **EXAMPLE: ECU CONSOLIDATION**



# Running on 60-100+ electronic control units (ECUs)

To reduce cost, the electronic architecture of the car is consolidating multiple ECUs into domain controllers, with infotainment and instrument clusters being one of the first candidates. Domain controllers need a safety-certified hypervisor to isolate and protect safety-critical systems.

### **PRESERVE SAFETY CERTIFICATIONS**

QNX Hypervisor makes it easier to obtain and maintain safety certifications by separating safety-critical components from non-safety critical components in separate guest operating systems. The QNX Hypervisor is built from a safety and security pedigree and complies with:



ISO 26262 ASIL D for automotive safety

IEC 62304 for medical device software



IEC 61508 for industrial safety

**VIRTUAL CPU MODEL** 

The QNX Hypervisor uses a virtual CPU model where cores can be exclusively owned by guests or shared among multiple guests. Priority-based scheduling and priority-inheritance ensure that shared cores and shared devices are managed deterministically.

#### **SHARED GRAPHICS**

QNX Hypervisor provides flexible and optimized graphics support designed for performance and safety.

System Analysis an Optimizatio



Mediated virtual GPUs with full hardware acceleration and failure handling.

## BlackBerry QNX

## Secure. Reliable. Trusted