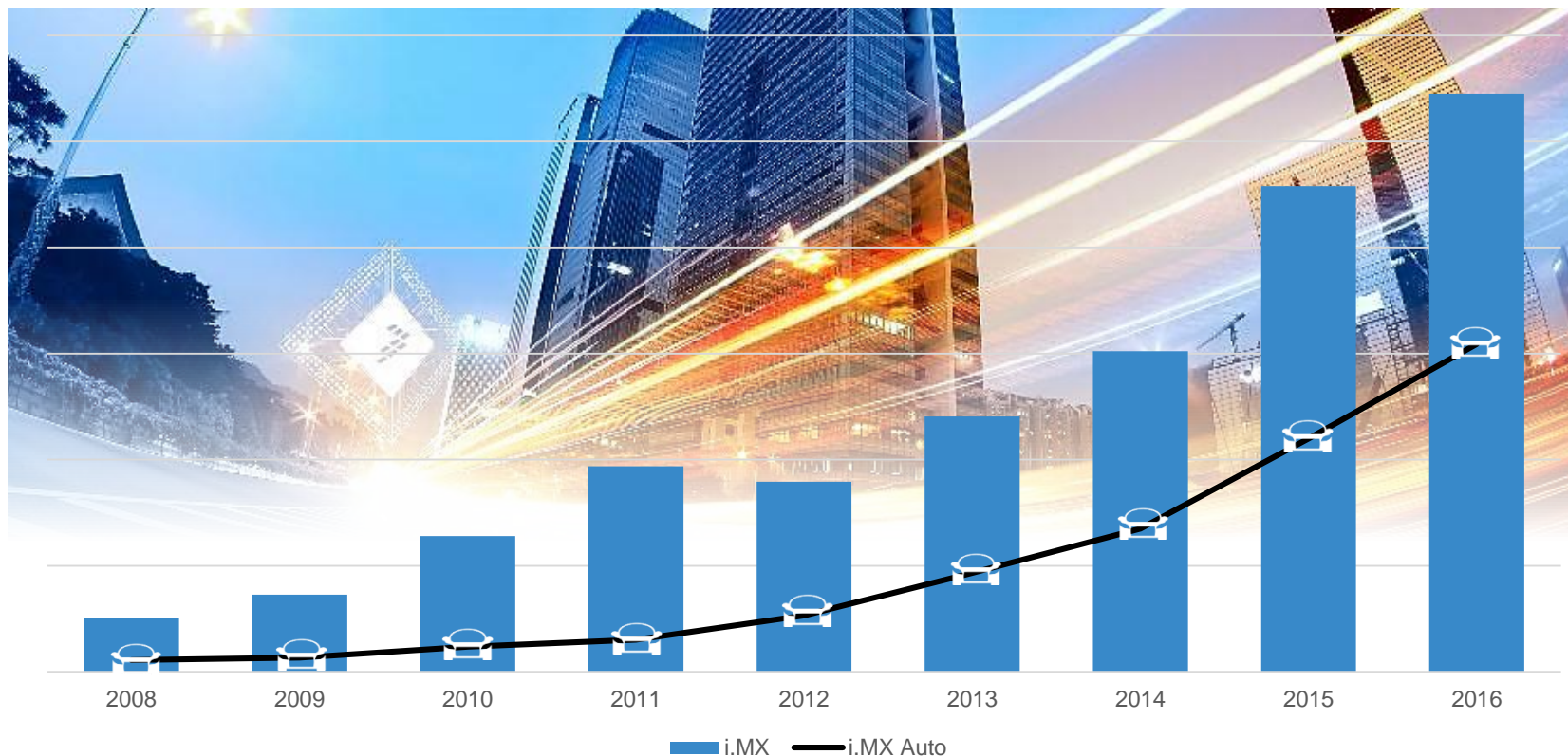


恩智浦新一代娱乐信息系统解决方案

i.MX 2008 - 2016



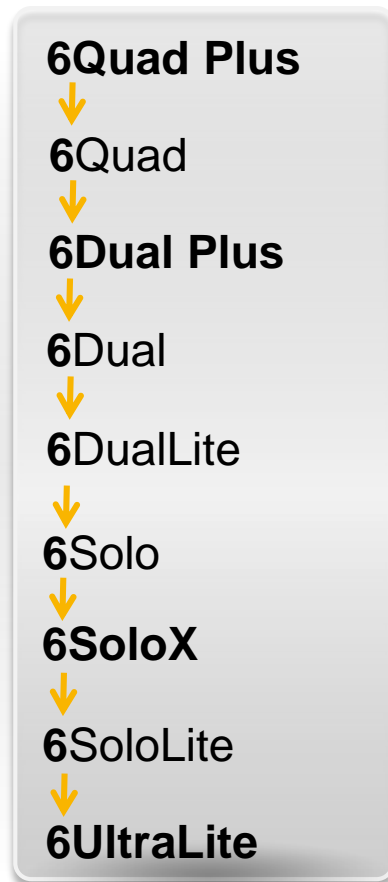
- Automotive Drives >55% of i.MX Revenue Since 2015

Over **350M i.MX** SOCs shipped to date
Over **92M i.MX** shipped in vehicles since 2007
#1 in Auto Infotainment Applications Processors

Source: Strategy Analytics Infotainment & Telematics Q1 2017

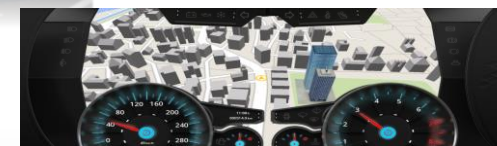


i.MX PROCESSOR ROADMAP



ARM® v7-A

32 - 64 bit OS compatibility from entry to premium segments



i.MX 8

Advanced Graphics
& Performance

ARM® v8-A Cortex-A53 / A72

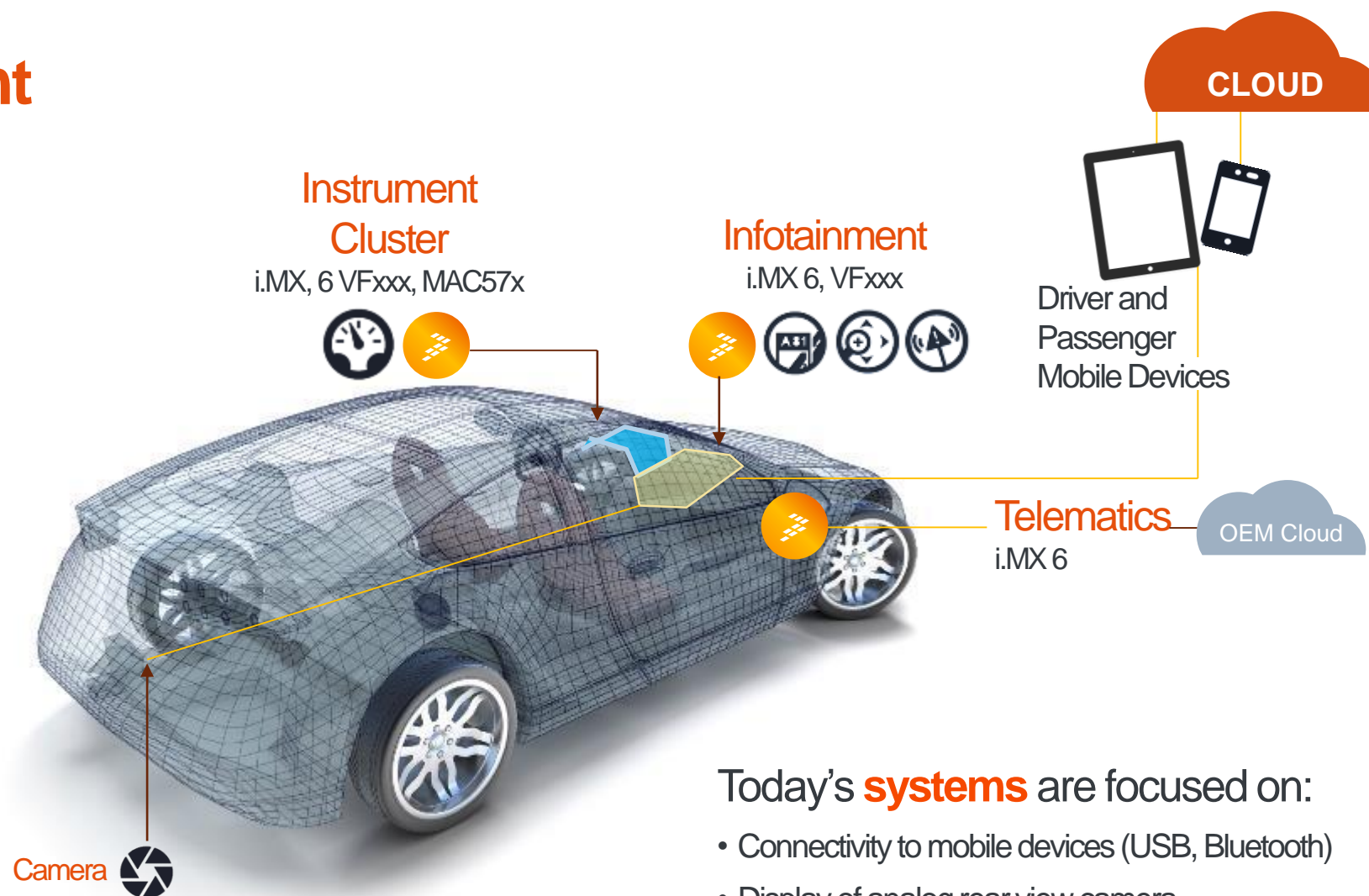
i.MX 8X

Efficiency
& Bill of Materials Optimization

ARM® v8-A Cortex-A35



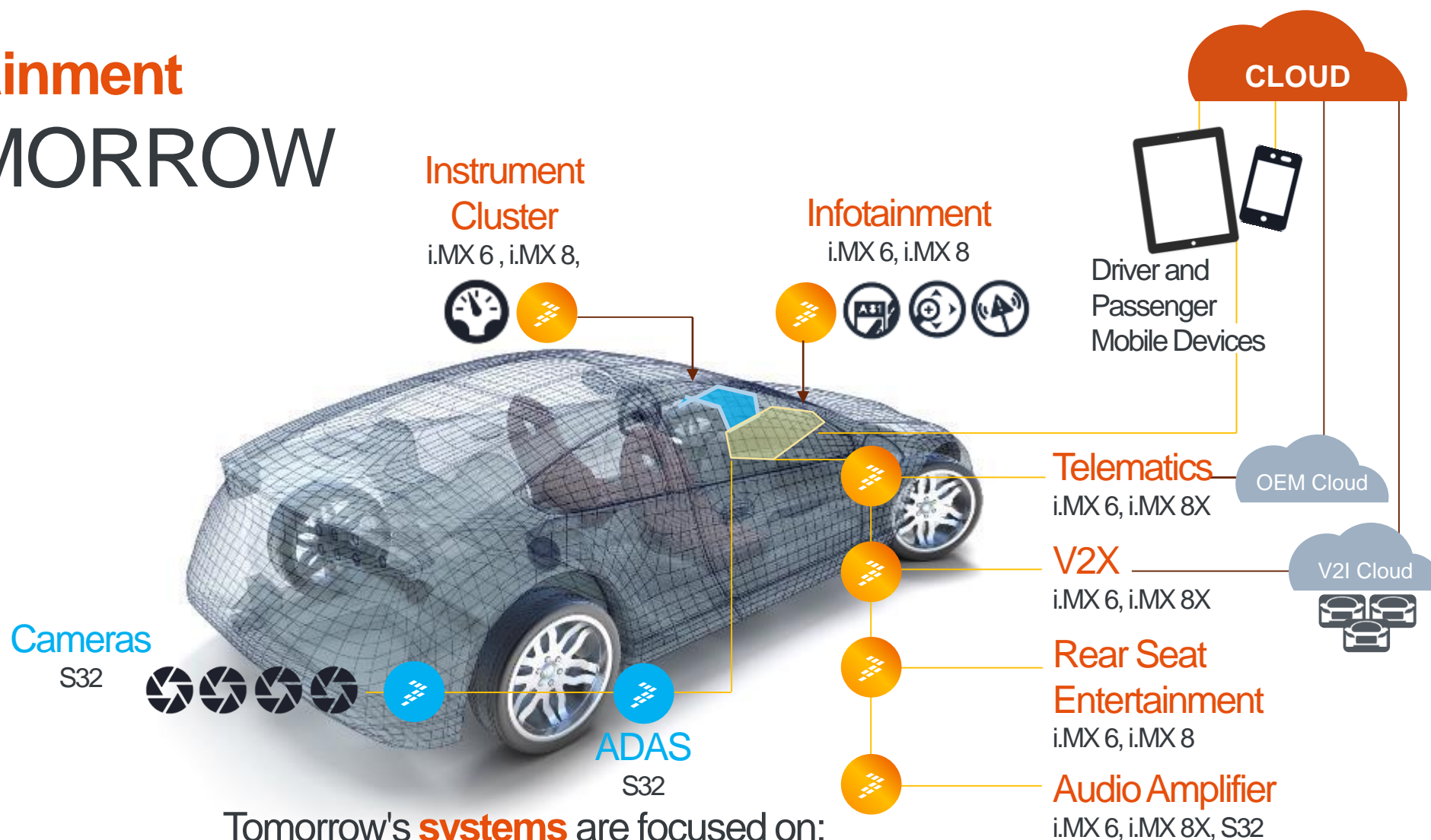
Infotainment TODAY



Today's **systems** are focused on:

- Connectivity to mobile devices (USB, Bluetooth)
- Display of analog rear view camera
- Sharing HMI information with the instrument cluster
- Basic emergency services

Infotainment TOMORROW



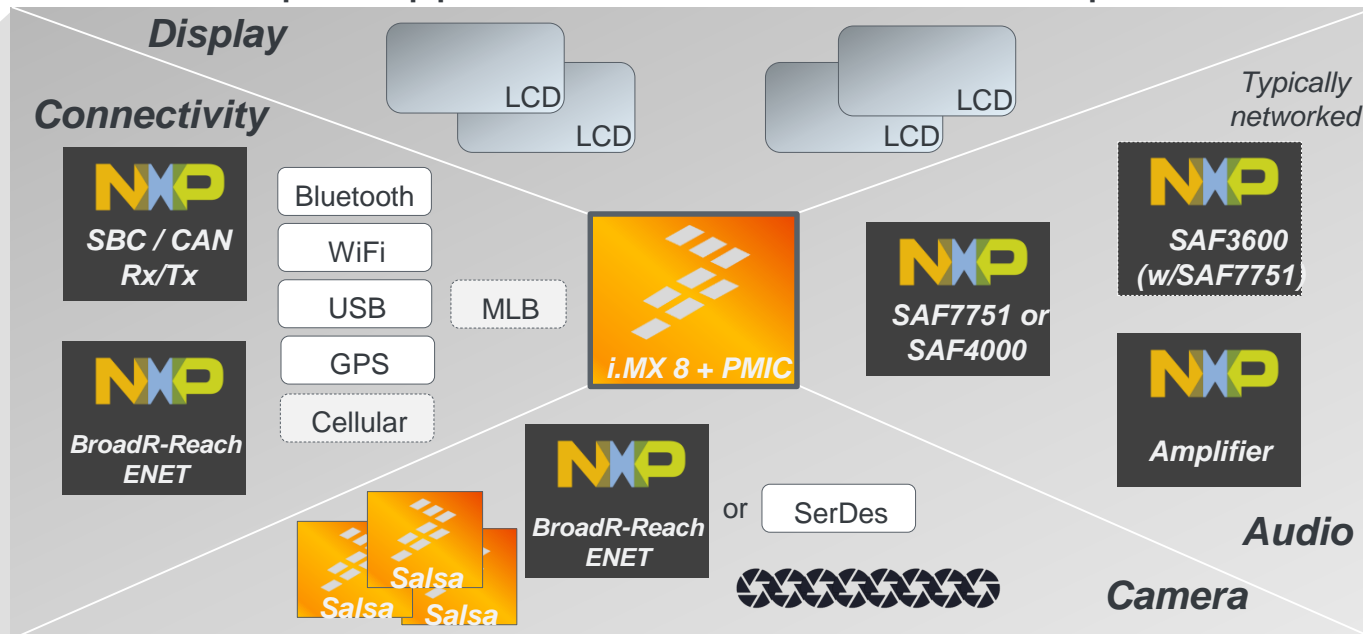
Tomorrow's **systems** are focused on:

- Increased sensing nodes – multiple **cameras**, **sensor fusion**, **situational awareness**
- Increasing computational capability and **number of displays** – virtualization, multi-OS, HD displays
- Increasing safety – ASIL camera and cluster

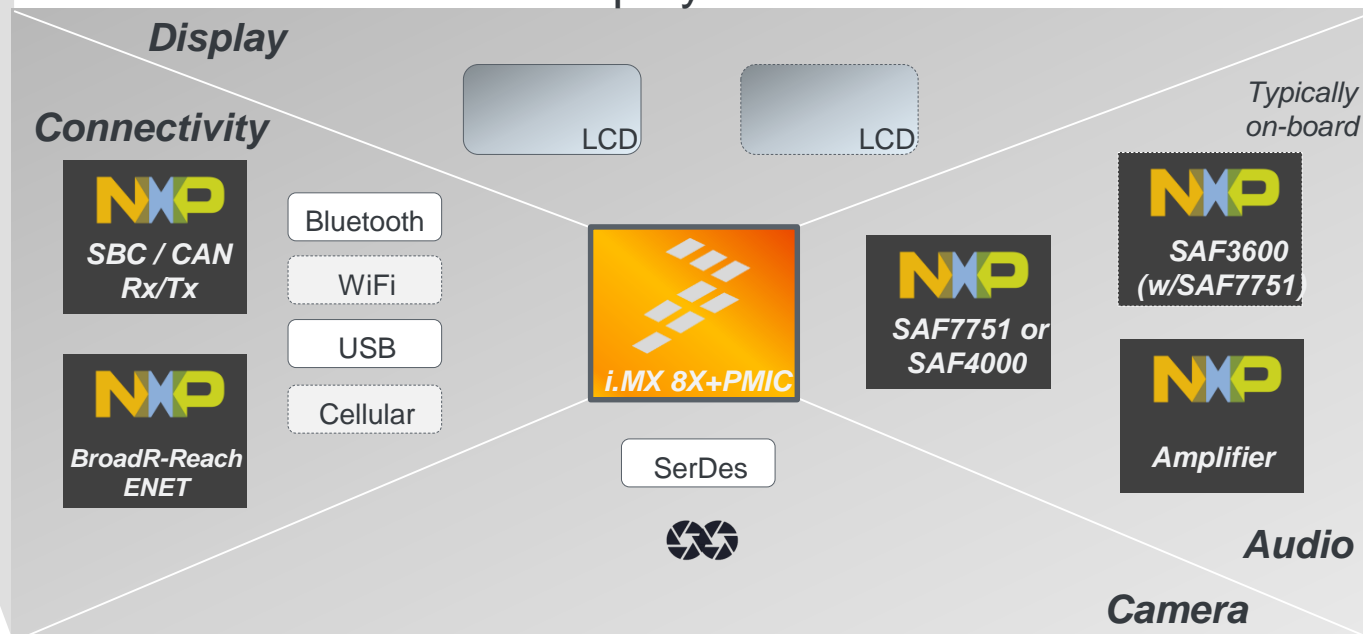
Infotainment TOMORROW



Open Application Infotainment / eCockpit



Display Audio

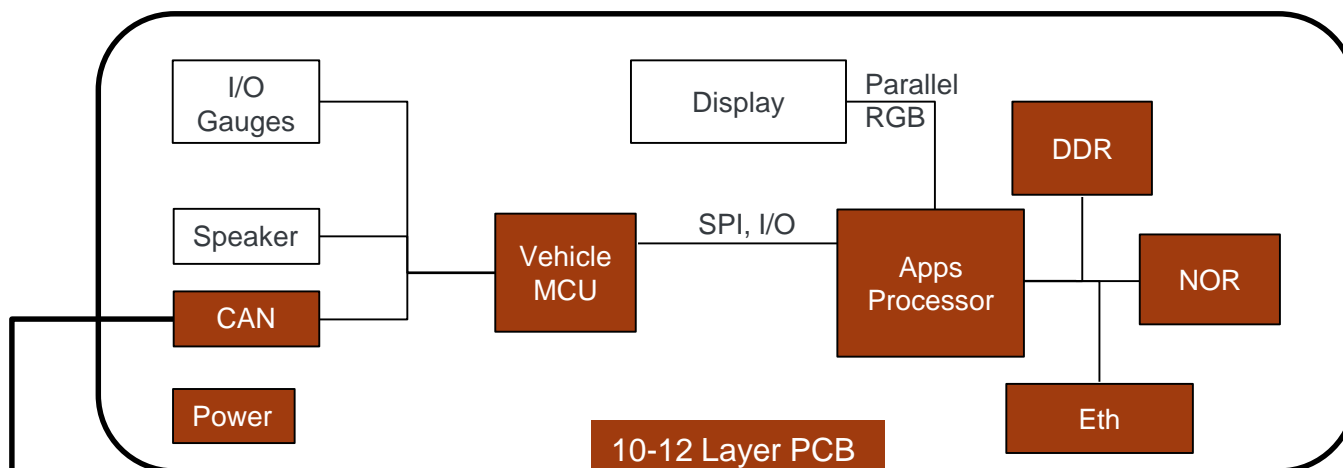


Market shifting to two discrete segments

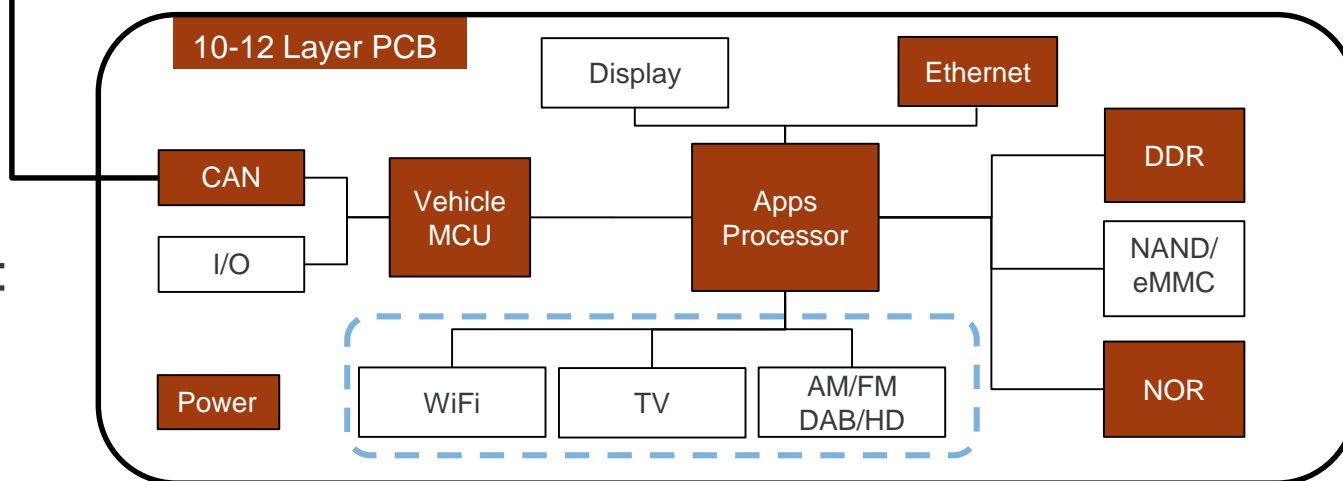
- High performance with embedded applications, navigation and multiple displays
- Cell phone driven display audio with applications and navigation from phone

Current Reconfigurable Cluster + Infotainment Architecture

Cluster:



Infotainment:



Duplicated:

ECU housing and design NRE

10 layer cluster PCB

5-6 power supplies / circuit protection

Applications Processor & Software

256MB DDR / 128MB NOR

Cluster VMCU + ASIL B OS

Speaker

CAN Tx/Rx and harness

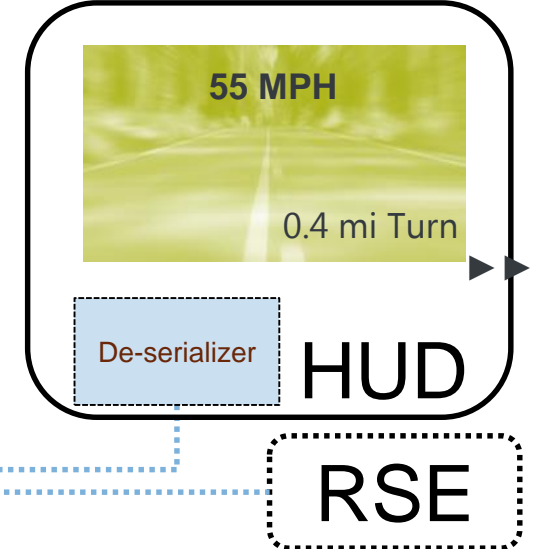
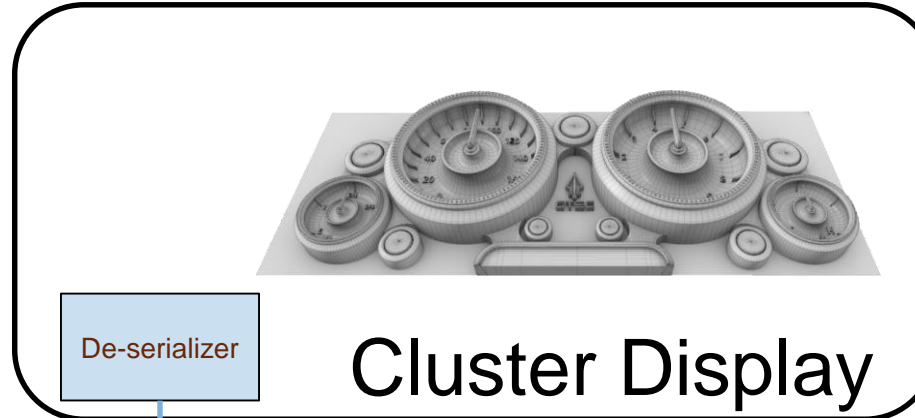
Debug ports and hardware

Discrete components and connectors



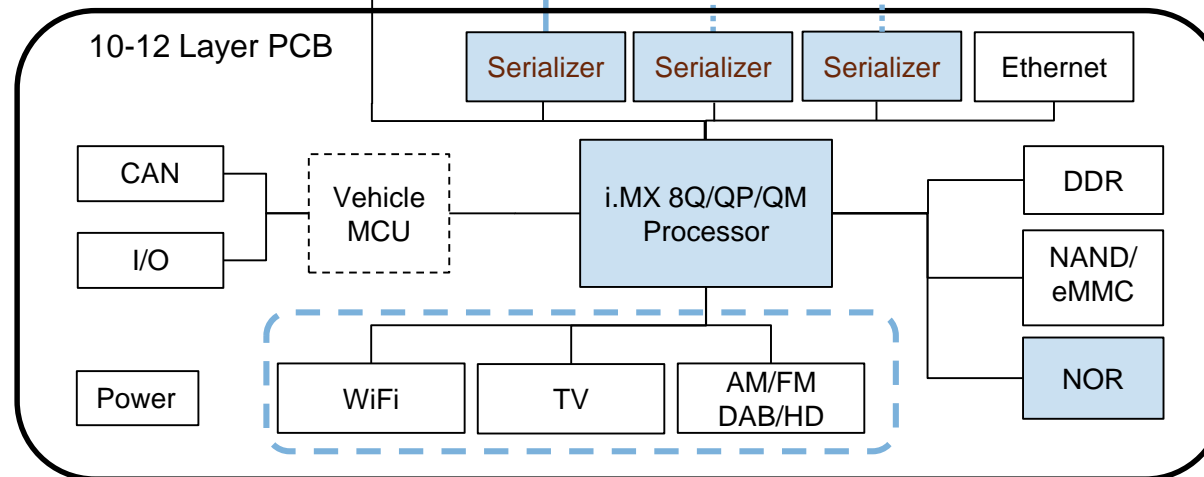
i.MX 8 eCockpit Design example

Single Supplier for All Graphics and Display Processing



Eliminated:

- ECU housing and design NRE
- 10 layer cluster PCB
- 5-6 power supplies / circuit protection
- Applications Processor & Software
- 256MB DDR / 128MB NOR
- Cluster VMCU + ASIL B OS
- Speaker
- CAN Tx/Rx and harness
- Debug ports and hardware
- Discrete components and connectors

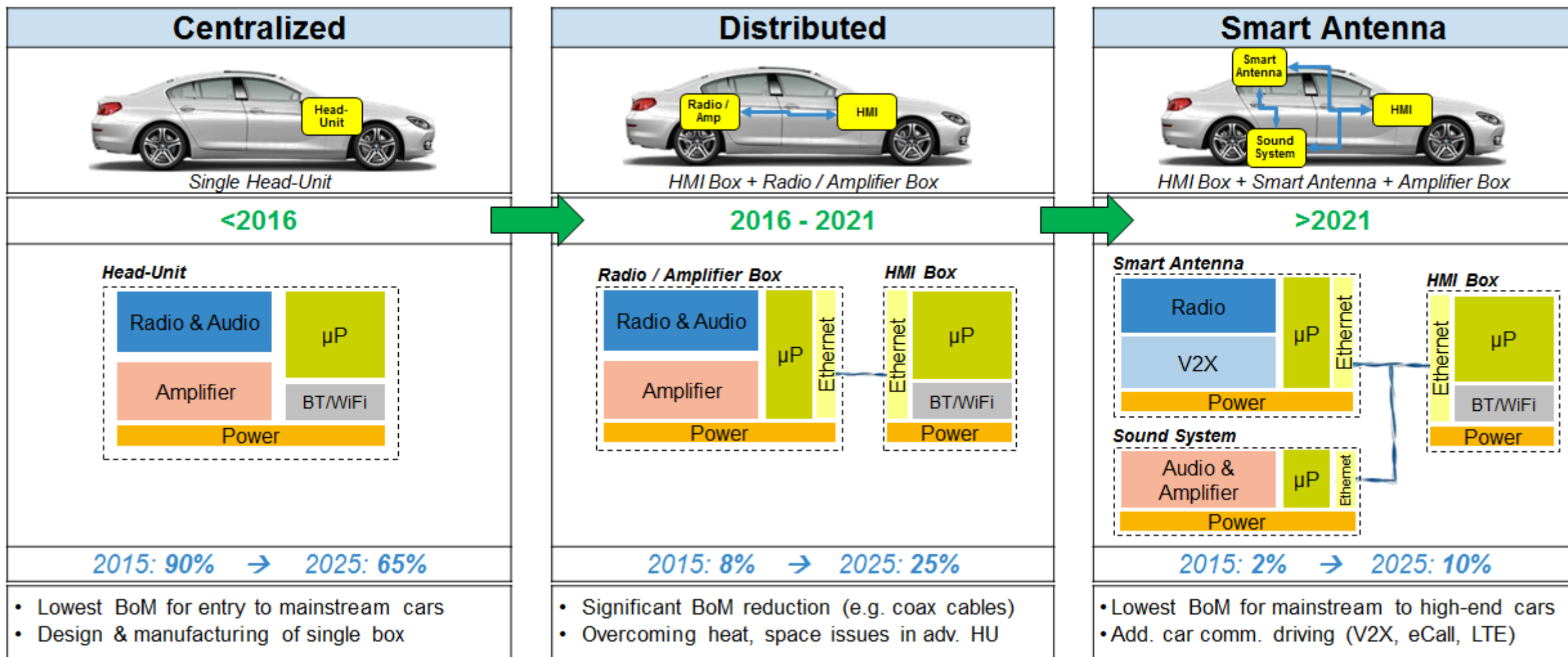


Additional e-Cockpit ECU requirements:

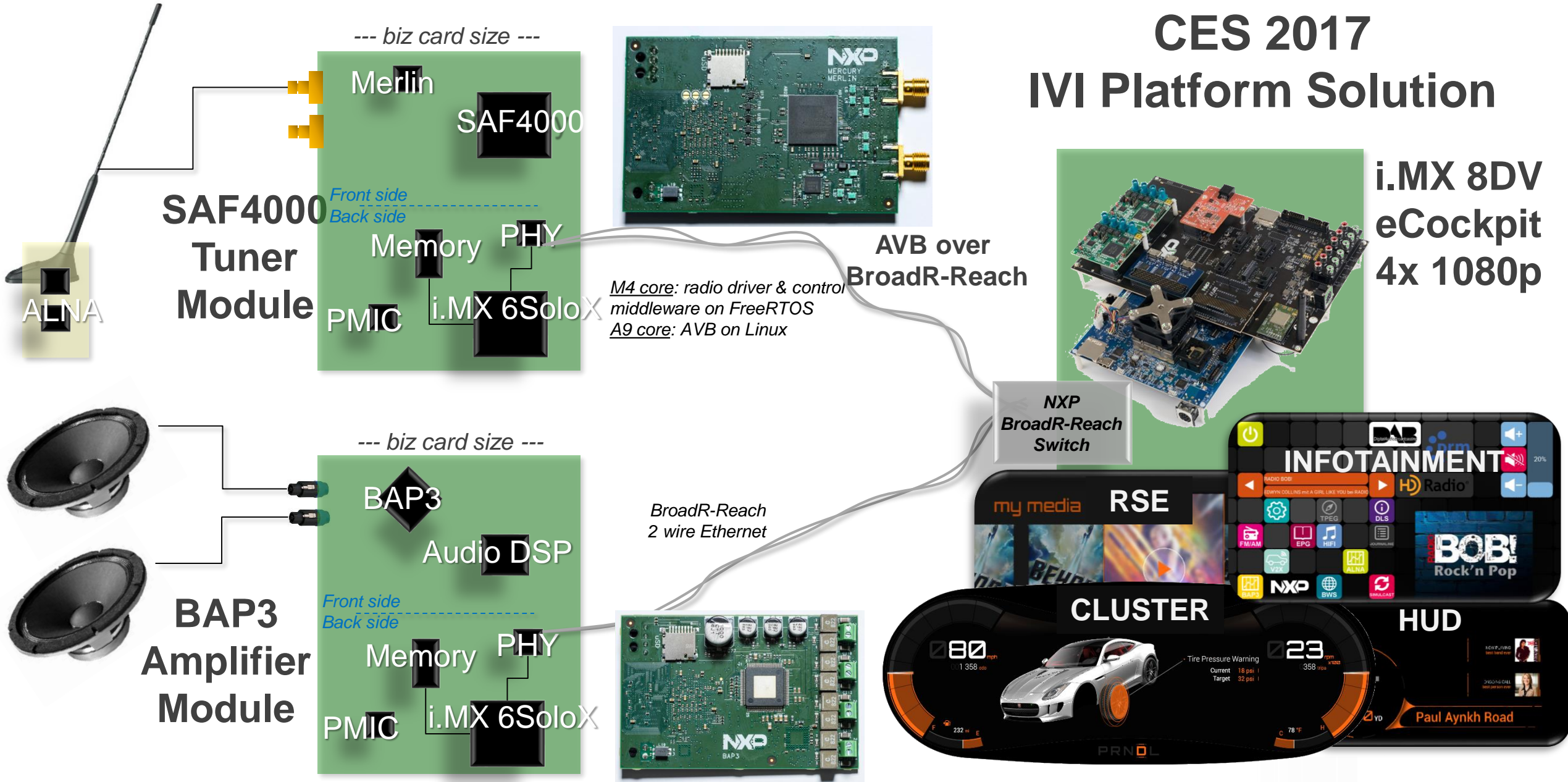
- Advanced Applications Processor (Delta from Infotainment SoC)
- ASIL B ARM Hypervisor
- Additional DDR / Additional program NVM
- Cluster plus optional HUD LVDS Serializers
- Cluster plus optional HUD Deserializers



Shape New Vehicle Architectures – drive Lowest System Costs



CES 2017 IVI Platform Solution



Summary

Car Radio

- Best-in-class Reception Performance
- Global SDR with Hybrid Radio 1-chip on min. footprint
- Pin compatible solutions from analog → hybrid
- Continuous innovation in Radio & Audio Algorithm

Audio Amplifiers

- Lead Amplifier transition from Class-AB to Class-D
- Outstanding Sound performance with reduced BOM
- Introduce MaxIC SW innovation for advanced loudspeaker compensation

Multimedia & HMI

- Leading scalability with i.MX Automotive Applications Processors
- Pin compatible solutions from low to high end
- Driving leading center stack, instrument cluster and telematics platforms at top OEMs





SECURE CONNECTIONS
FOR A SMARTER WORLD