

WIND

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DENSO TECHDAY

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**WHEN IT MATTERS,
IT RUNS ON WIND RIVER.**

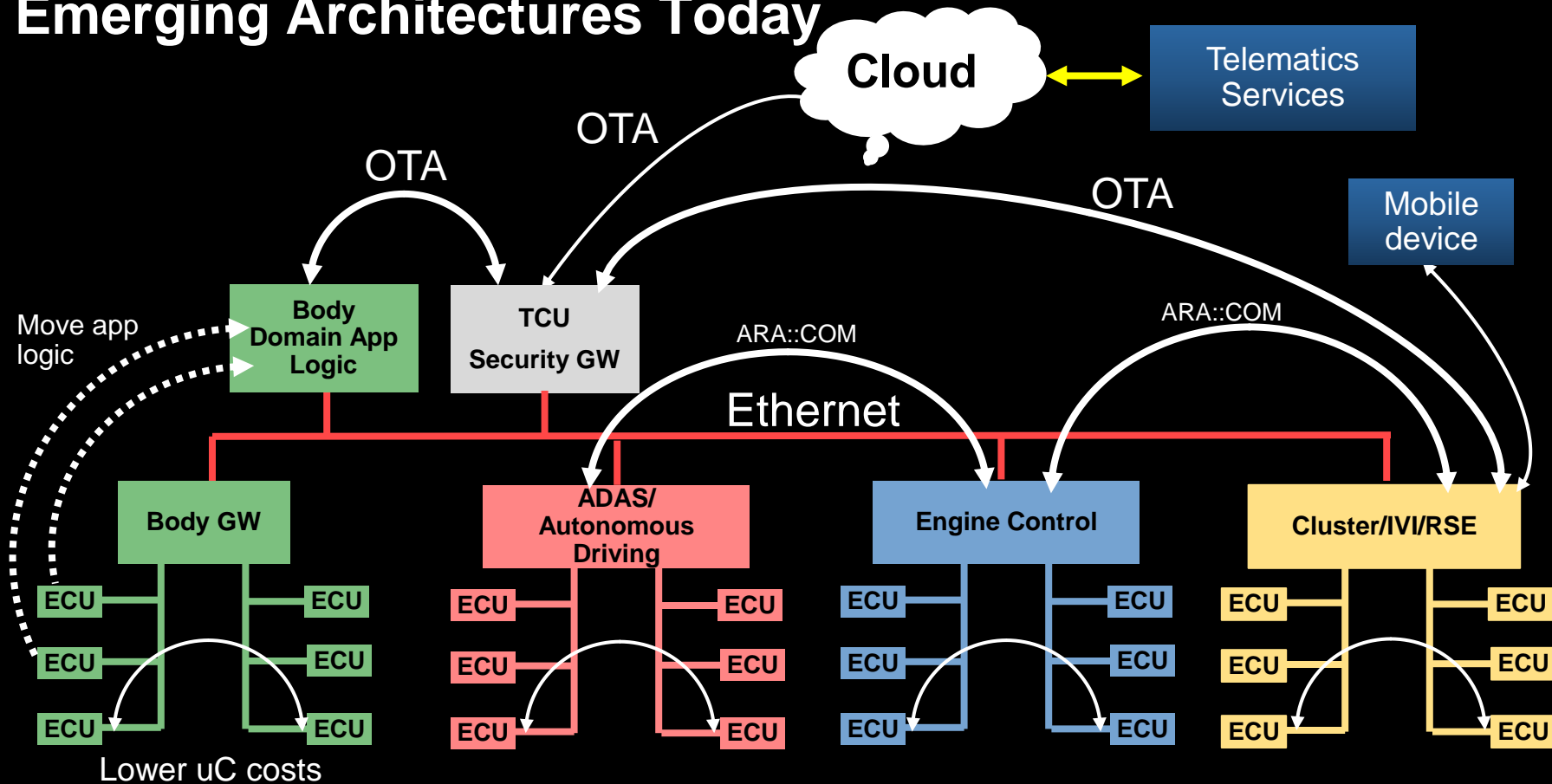
Agenda

10:00AM – 10:45AM	Rolling Lab Demo (DENSO Sales Team)
10:45AM – 11:30AM	Rolling Lab Demo (DENSO Engineering)
11:45AM – 12:00PM	Setup Catered Lunch
12:00PM – 1:30PM	Working Lunch to explore tech partnerships

Working Lunch Agenda

1. Rolling Lab Feedback
2. Introduction to Wind River SW platforms
3. Open discussion on advance use cases to address market challenges:
 - Plug-and-play sensor and algorithm framework for rapid HW/SW integration
 - Advanced connectivity for OTA and software lifecycle management, vehicle monitoring, data aggregation, and analytics
 - Advanced AI technology for In-Vehicle Cockpit
 - Others ?

Emerging Architectures Today





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Helix Chassis

A complimentary product portfolio:

- Helix Drive
- Helix Cockpit
- Helix EdgeSync



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Helix Drive

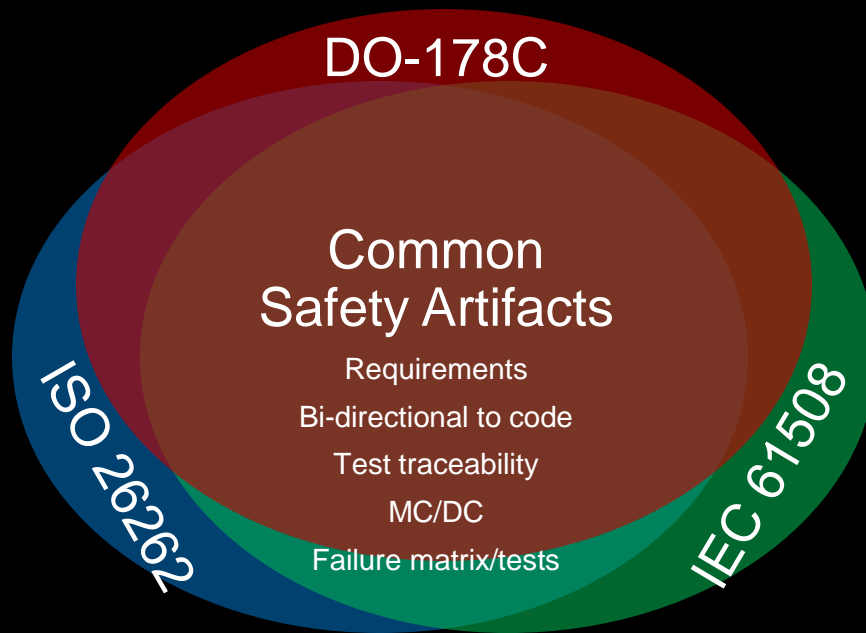
Foundation for autonomous



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Safety Standards

- We've been doing safety SW development for decades
- Each standard has many common process types and goals
- Main gap for ISO 26262 is formal notation (UML) in design documents



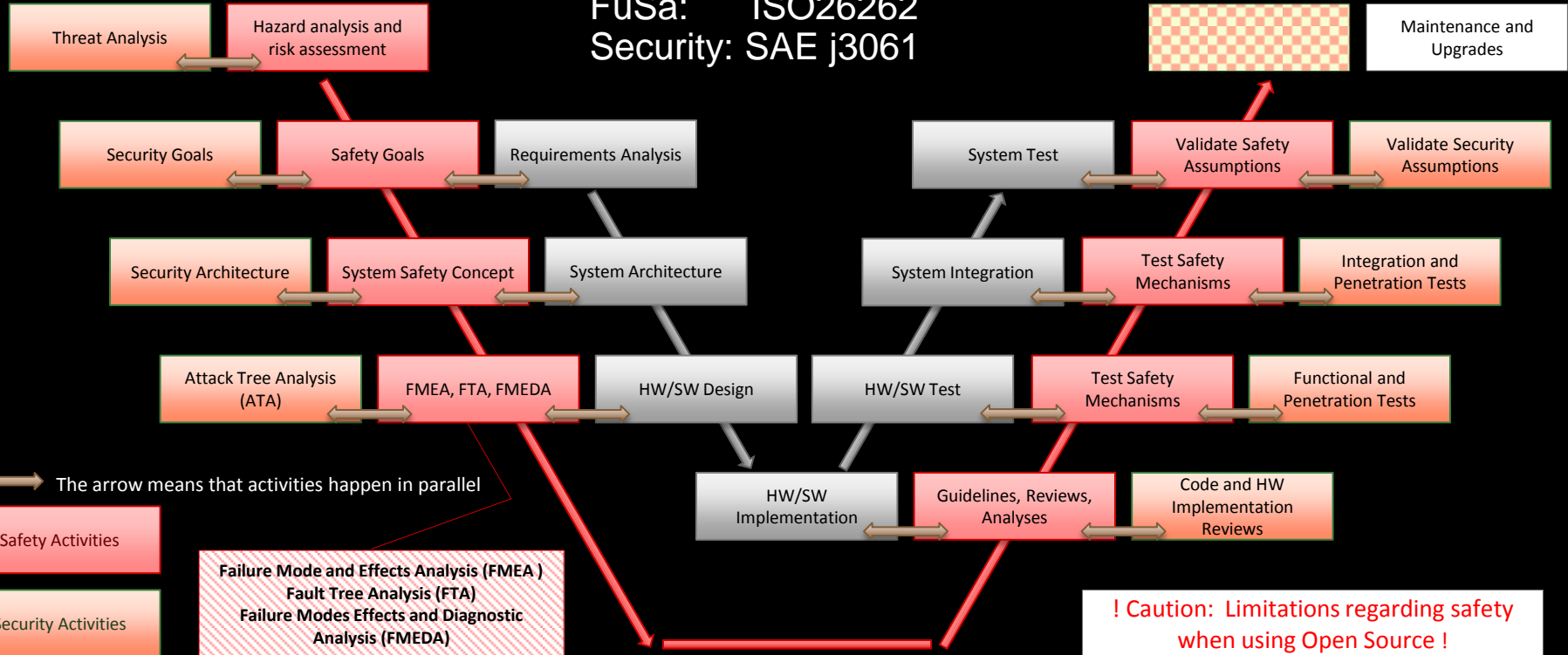
Audit

Secure

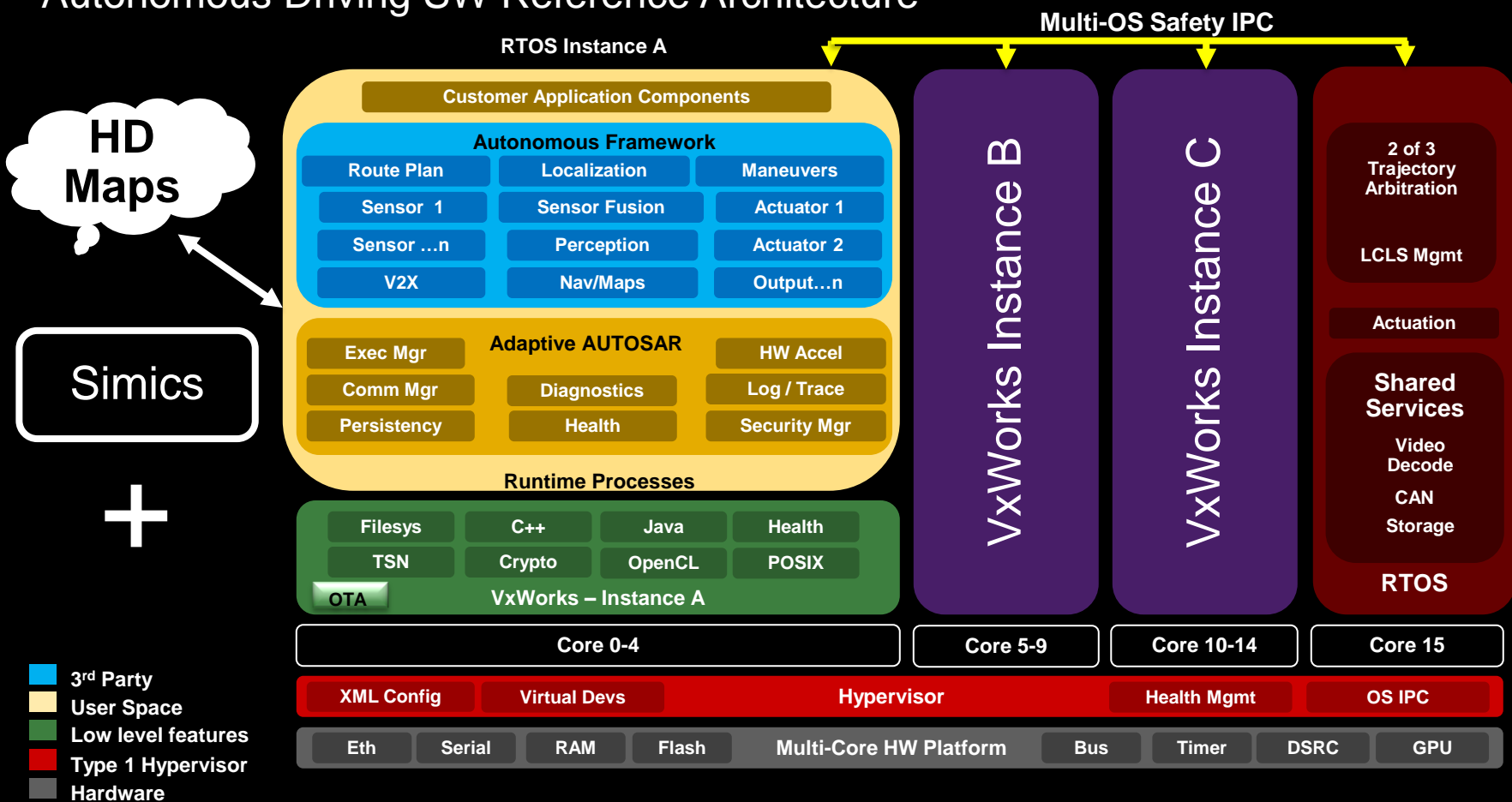
Insure

SDL and FuSa Lifecycle comparison

FuSa: ISO26262
Security: SAE j3061



Autonomous Driving SW Reference Architecture



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Helix Cockpit

Make it cheaper



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Helix Cockpit

Out of the Box Function, Production Oriented SW, End to End Integration

- Certified Hypervisor
- Certified Guest OS
- Commercial Linux
- Integrated OTA
- Advanced Android Access
- AA & Carplay
- Security Guest
- End to end Integration

Cockpit's Core Software Framework is running in a vehicle today!





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Helix EdgeSync

Software Lifecycle Management
System



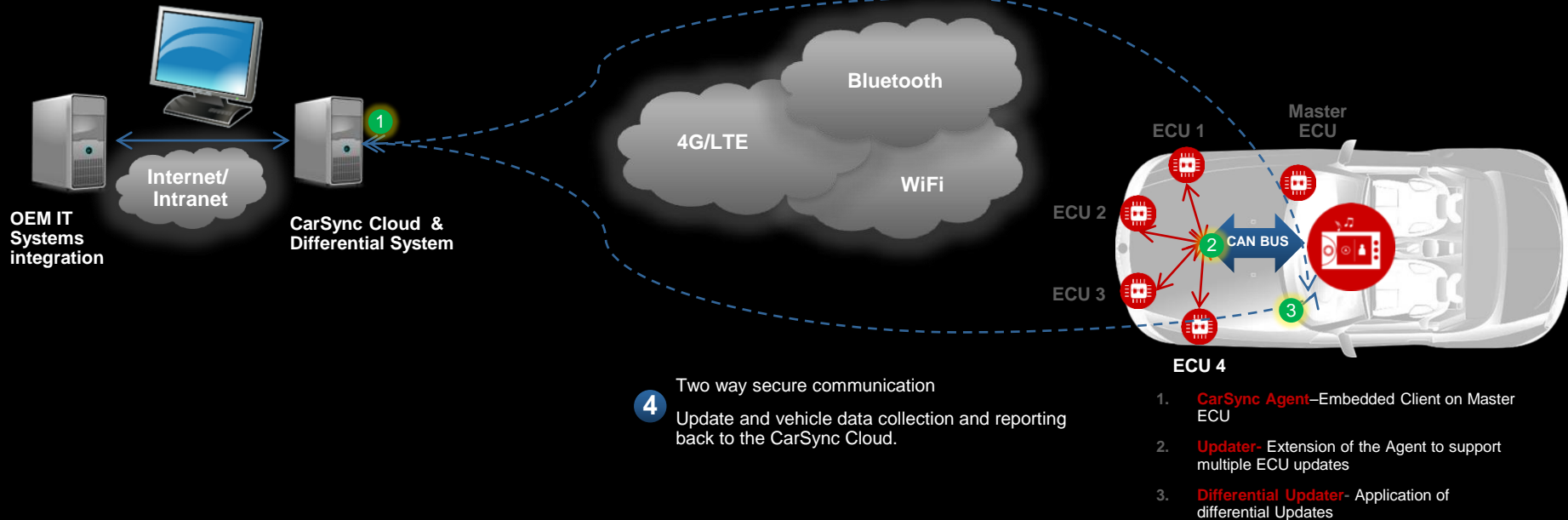
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How EdgeSync works

- 1** Release package generation, secure distribution and tracking
Reports & statistics representation

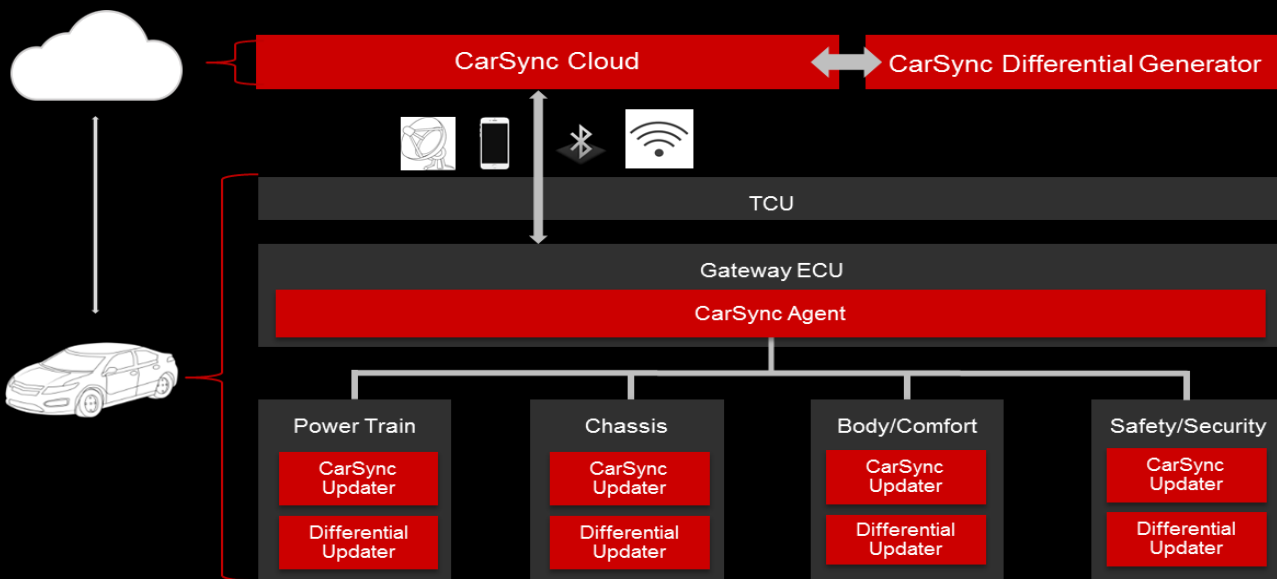
- 2** Secure update distribution channel
Agnostic to the communication medium

- 3** Update download, version validation, and installation through OS agnostic CarSync Agent



Helix EdgeSync

End-End OTA Update and SWLC management framework



- ✓ **Built for automotive** – Consideration for unique reliability and security requirements, not copy/paste from mobile
- ✓ **Modular and easy to integrate** with existing OEM IT infrastructure & third party solutions.
 - ✓ All modules can be delivered & integrated as stand alone products or as a complete end-end solution
- ✓ **End-end security**– Ready to integrate into OEM secure framework w/ validated reference implementation for data encryption, signing & verification, and secure channel
- ✓ Provides **real time insight** in to the update status
- ✓ Enhanced **campaign management** – by region, update type, selection of communication method, etc.
- ✓ **Agnostic** – no hard dependencies on OS, HW, or Cloud to Car or In-vehicle protocols
- ✓ Supports updates to **multiple ECUs**

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