

2024 BlackBerry QNX TECHForum Korea

» Introduction of Alton ;

ivis' approach to SDV standard data platform

Dohyoung Kim (Sales Director)

CONTENTS

- 1. Brief introduction of ivis**
- 2. Why SDV?**
- 3. Technical approaches to SDV**
- 4. Alton introduction**
- 5. Conclusion**

1. Brief introduction of ivis

|| Highlights of ivis



Software Power Driving the Future Mobility

Founded in 2010

Over the past 14 years, we have grown consistently and established ourselves as a leader in the automotive software development industry.

Automotive Embedded Software

We are leveraging our unique expertise in automotive software to approach SDV.
SDV : Software-Defined Vehicles

Software Platform Design Expertise

We have specialized expertise in automotive software, offering customer-focused platforms. Our solutions deliver reliable and stable software platforms.

90% Inborn Engineers

We continuously seek and nurture software development talent, shaping them into experts. Together with our diverse team, we are driving the technology for future mobility.

1. Brief introduction of ivis

Reference businesses

Infotainment System



Digital Cluster System

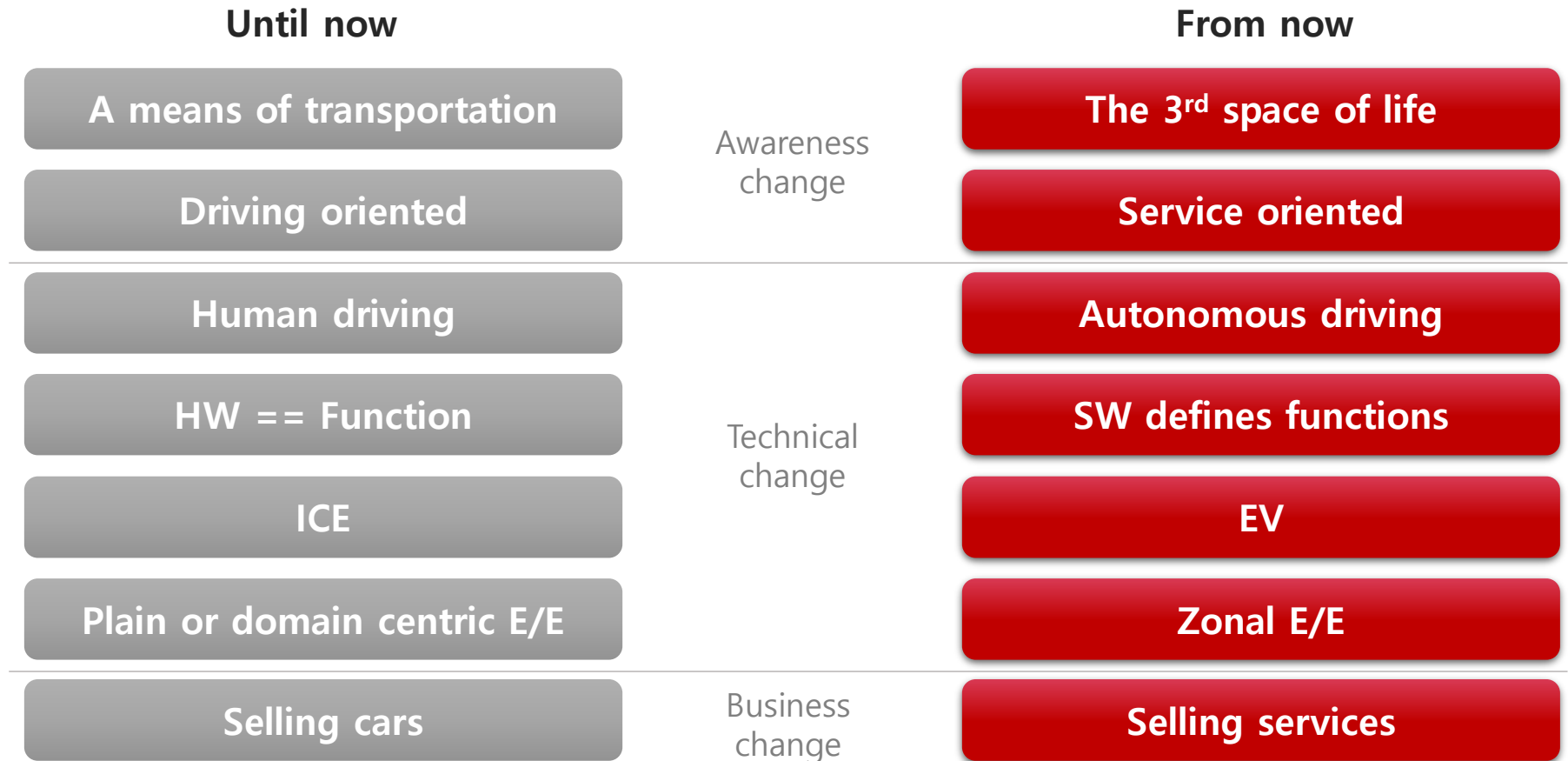


- Collaborative development of infotainment SW platform for a global OEM
- Technical support is ongoing for expanding the application to subsequent vehicle models of the OEM , following its initial deployment in premium models

- Providing software architecture and solutions for digital cluster systems and supporting the generation based mass production
- Developing next generation digital cluster software platform on QNX

2. Why SDV?

II SW, mobility game changer

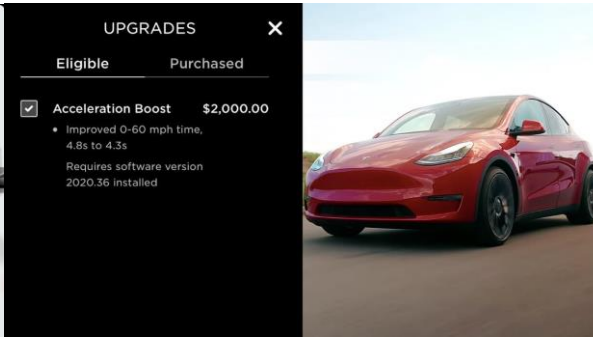


2. Why SDV?

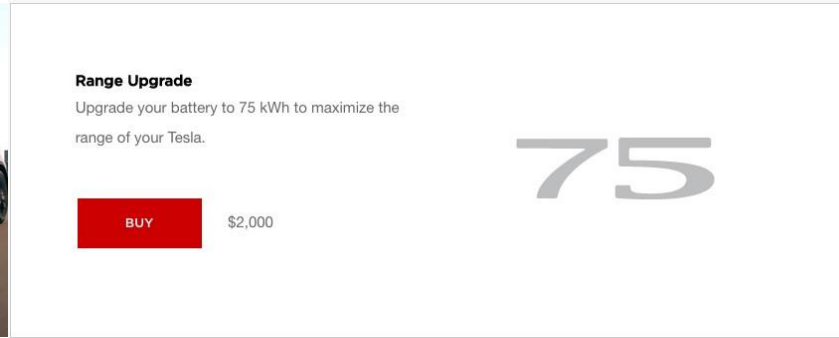
|| Tesla examples



<FSD @ \$199/mo.>



<Acceleration boost @ \$2,000>



<Battery range upgrade @ \$2,000>



<Sentry mode and dog mode in Premium connectivity @ \$9.9/mo.>

<Smart summon in FSD>

3. Technical approaches to SDV

|| Targeting completely open ecosystem

- **HW: Zonal architecture**

- Consolidating ECUs into HPC
- Simplified architecture : Central HPC – Zone Controller – Sensor or Actuator
- Relatively easier to achieve for pure EV manufactures

- **SW: Standard platform**

- Standard SW platform being deployed on HPCs
- Virtualization for consolidating and partitioning services per their safety levels
- Cloud-based app markets, digital twin, developer's environment,...

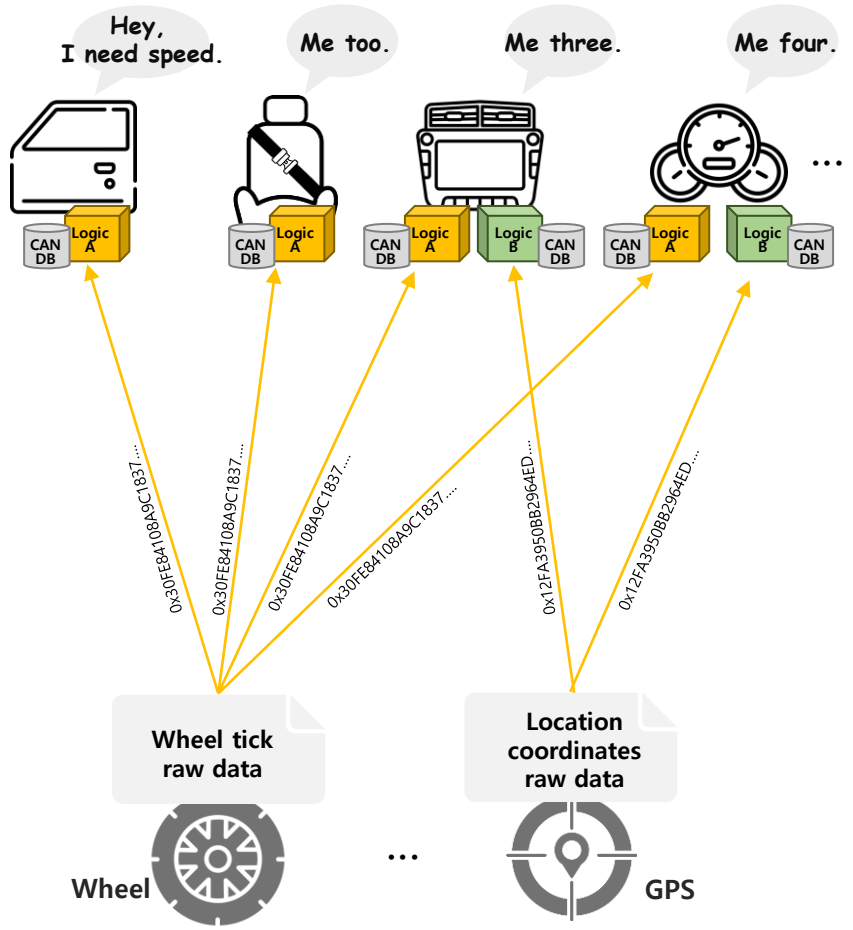
- **Data: Standard vehicle model and interface**

- Standard vehicle data model such as VSS, HIM, AKM, ...
- AI enablement at the edge and the cloud
- Cyber security and data protection

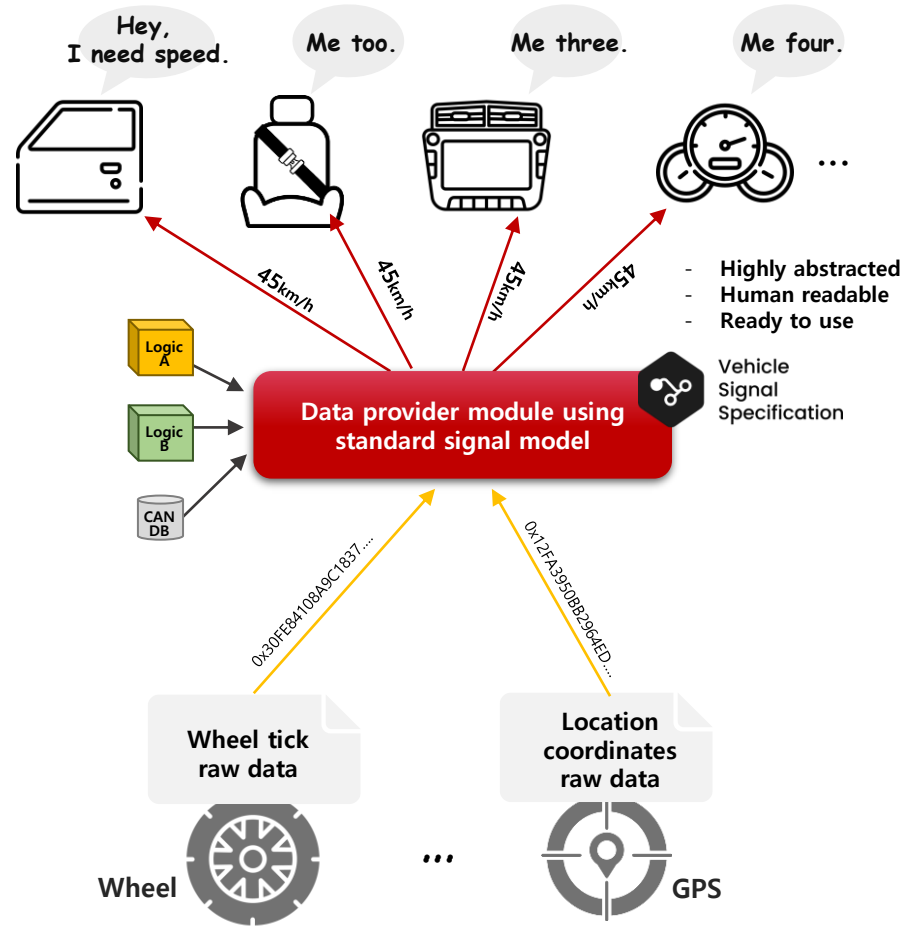


4. Alton introduction

|| Pain points of vehicle data processing



<Bottom-up approach>



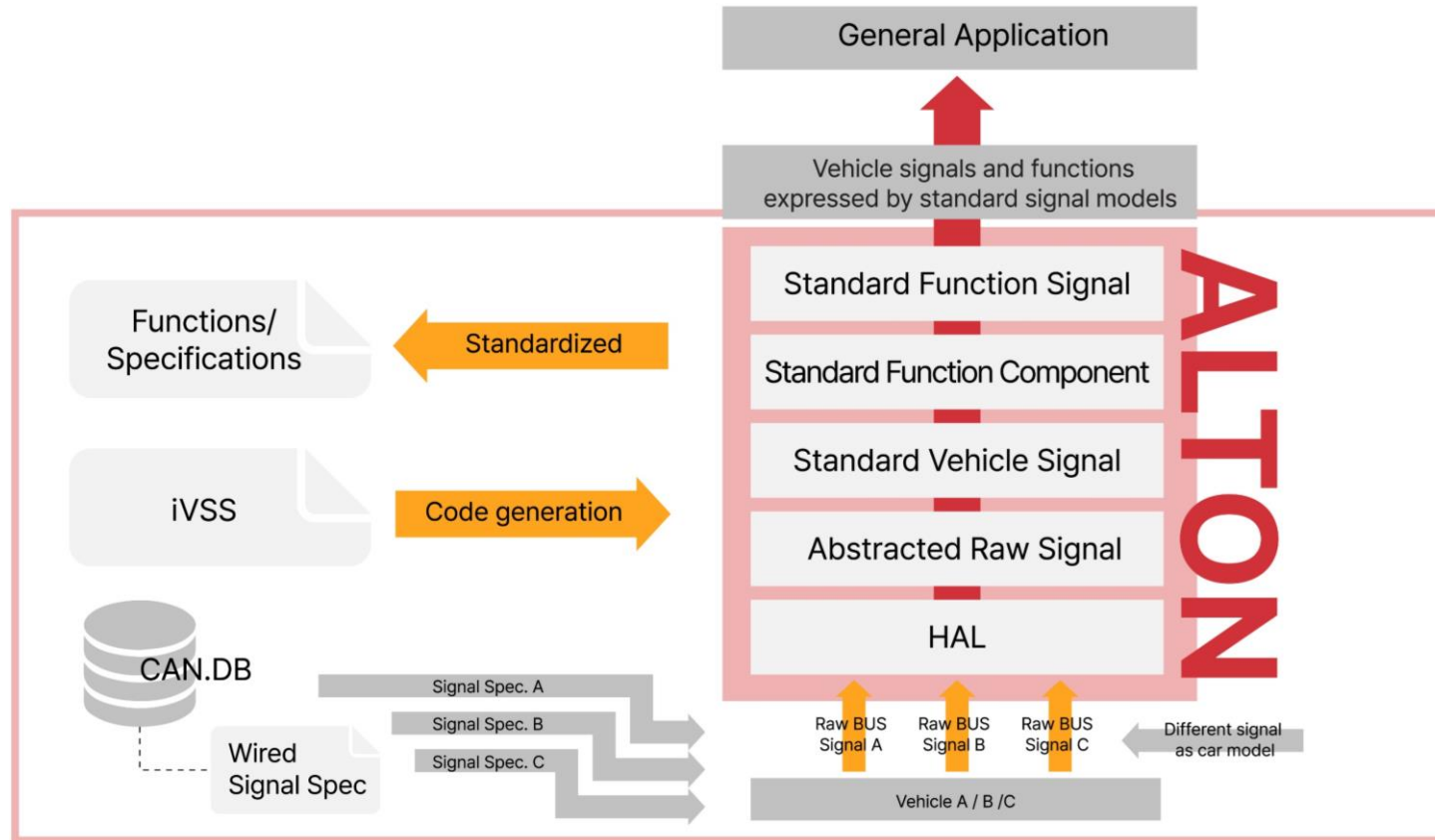
<Top-down approach>

- Highly abstracted
 - Human readable
 - Ready to use
- Vehicle Signal Specification

4. Alton introduction

Alton, vehicle data provider solution

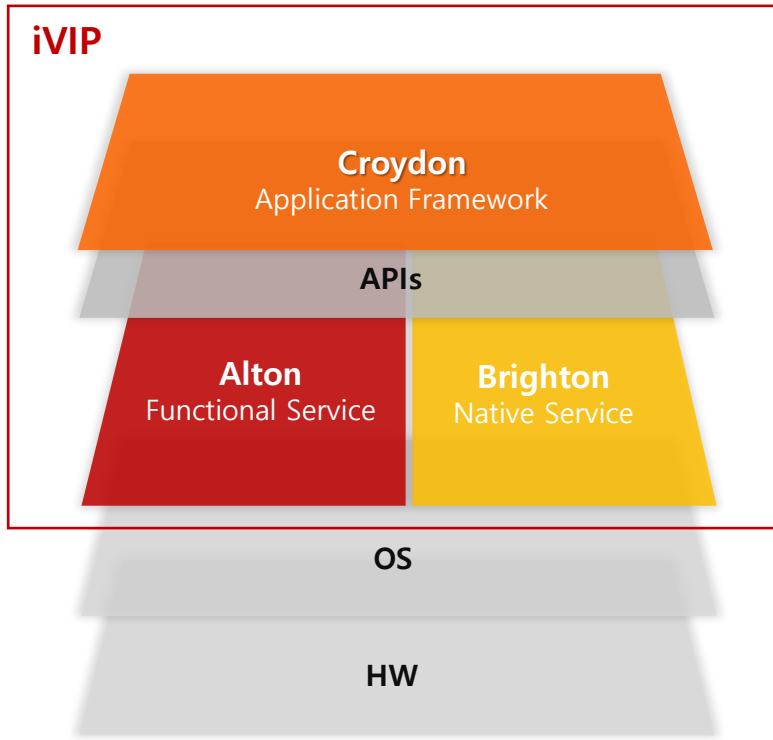
- Conversion of vehicle data from the raw signal to highly abstracted (standardized) signal
- Provision of logic (specification) designing environment with plug-in structure



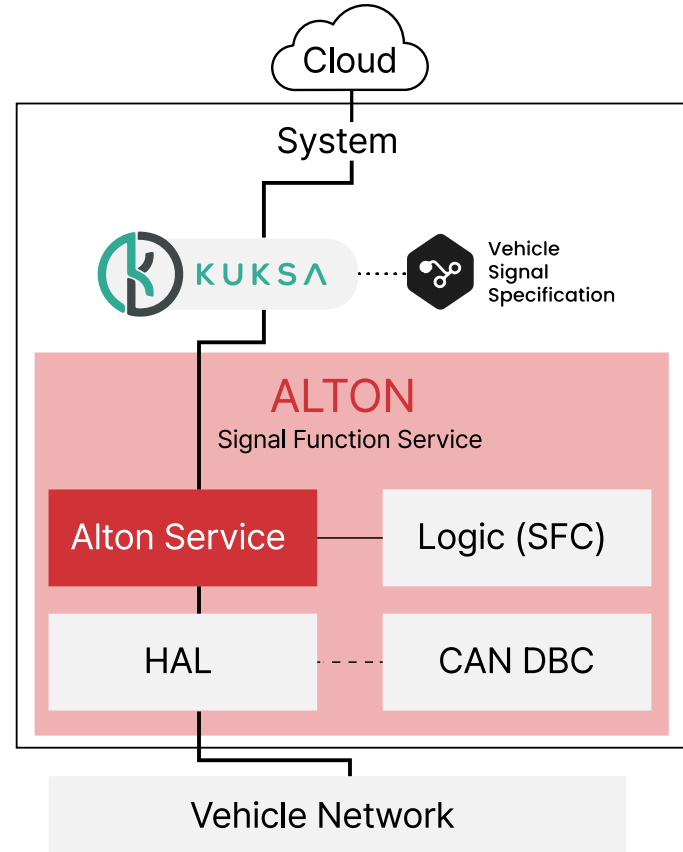
<How Alton works>

4. Alton introduction

Alton's position in SDV world



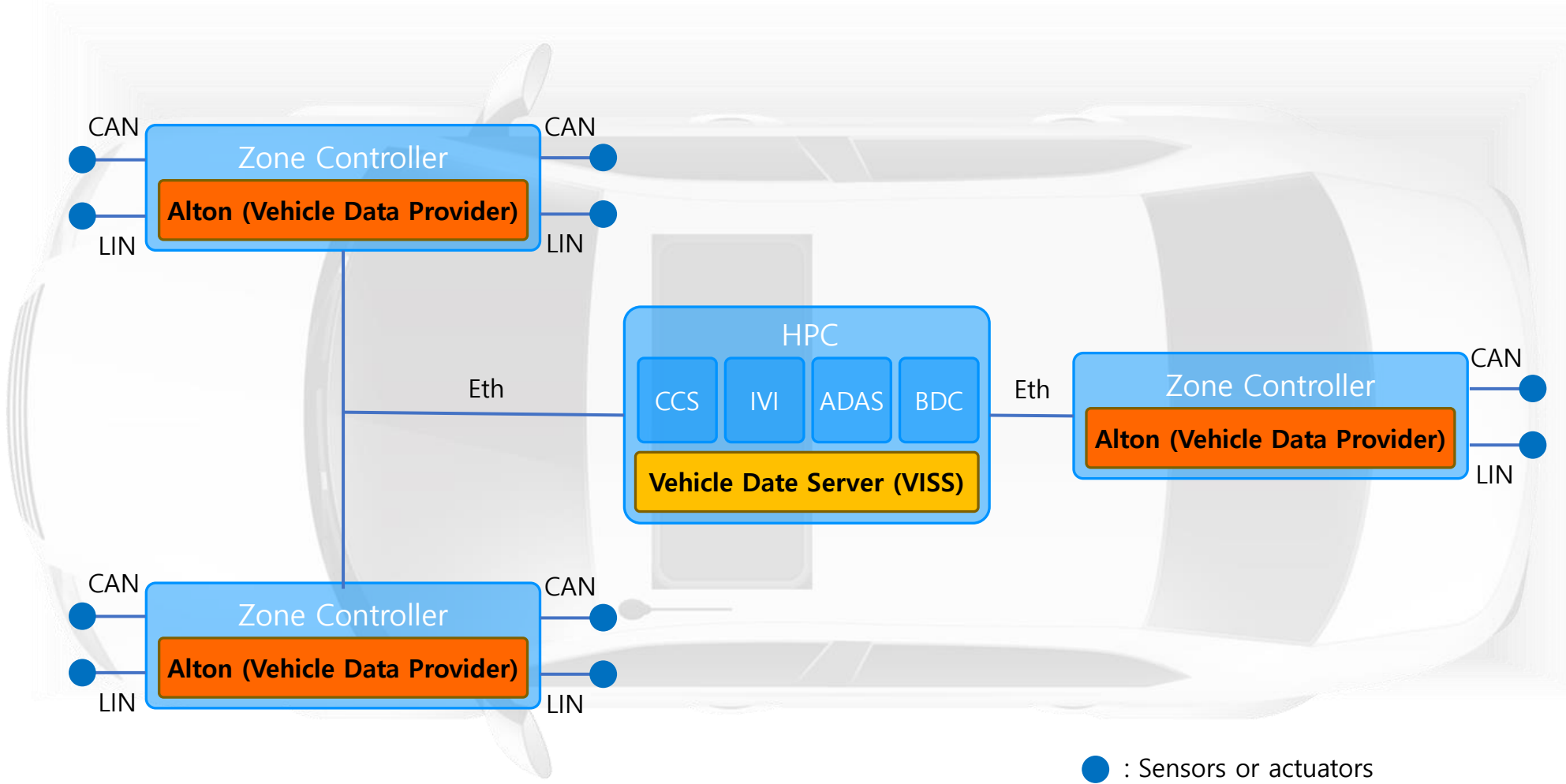
<Alton in iVIP embedded system>



<Alton with de-facto standards>

4. Alton introduction

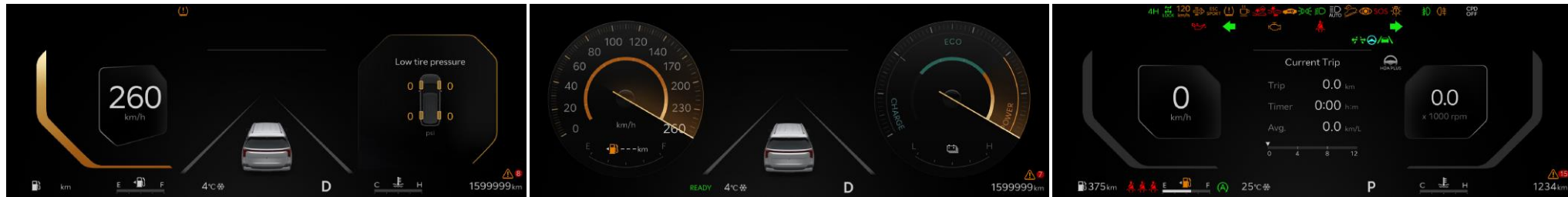
|| Alton's position in SDV world



<Alton's position in zonal E/E architecture>

4. Alton introduction

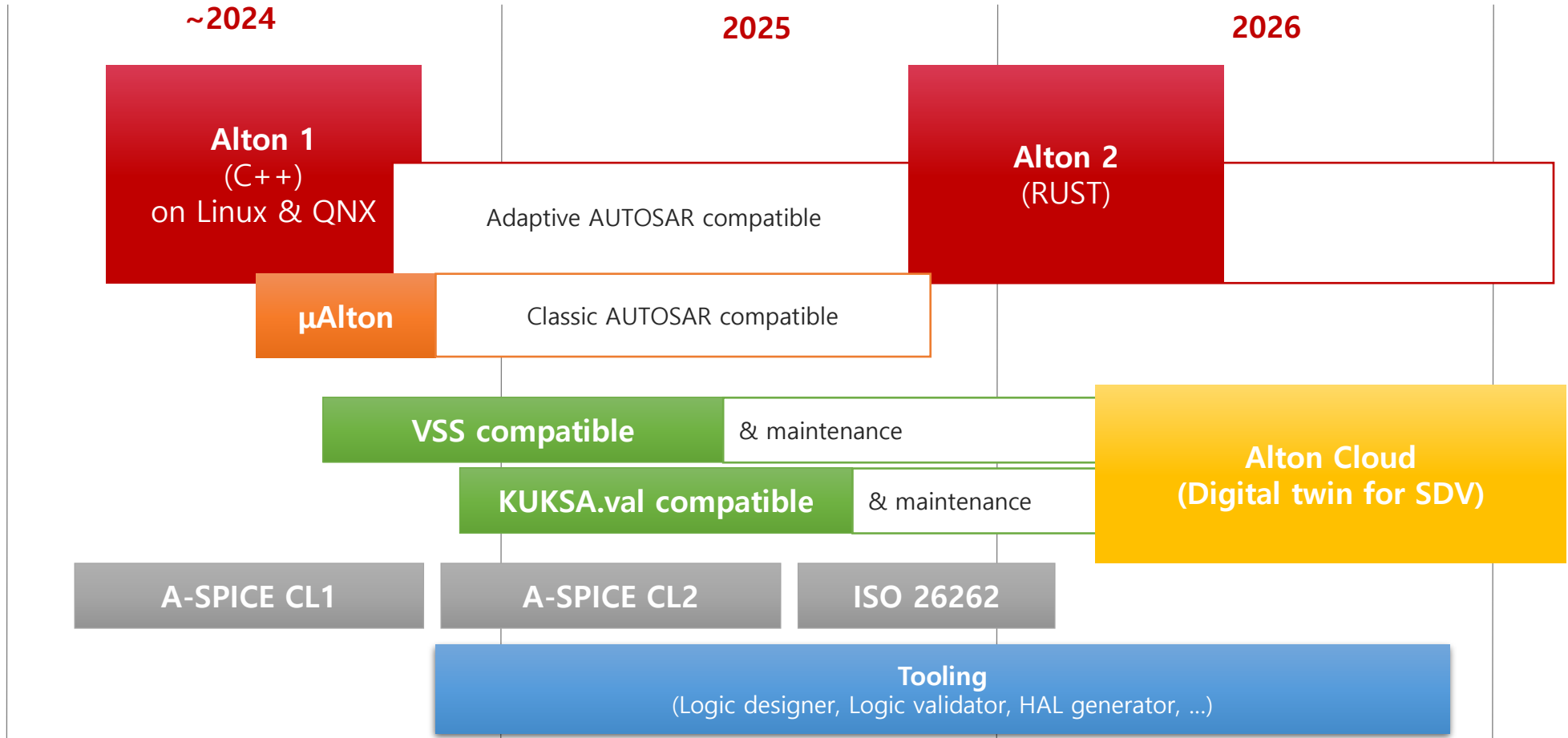
|| Proven in the production grade digital cluster development



- Best fit to digital cluster systems having more than **150 display functions** by receiving signals from various parts
- Applied to a generation based production of a global OEM with **Linux** from 2022, and will be loaded to **more than 2M vehicles** by the end of 2024
 - (Customer success story)* With **over 600 functions components** developed by using Alton and Alton framework, now being deployed to **more than 70 vehicle models** with conceptually **one binary**
- Now expanding to the next generation **cockpit system** with **QNX** projecting its application to **more than 10M vehicles** in the near future

4. Alton introduction

Alton roadmap



5. Conclusion

- Vehicle data chain is very important for realizing SDV
- There is a clear need for a vehicle data brokerage solution providing highly abstracted (standardized) data to be used in various applications, and Alton does it!
- Reliability is proven in the production quality digital cluster program
- Now under development to be connected with the outer world of SDV, for example, de-facto standards (AUTOSAR, COVESA, Eclipse, ...), 3rd party solutions, and cloud environment
- Dreaming 100% open and data neutral eco system connecting SDV world more safely and more securely

Thank you



ivis

ivis home <https://ivis.ai>

ivis email ivis@ivis.ai

Dohyoung Kim email dhkim@ivis.ai