Unlocking the potential of In-Vehicle Edge AI

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Sonatus | Proven Automotive Software Supplier

End-to-end provider of in-vehicle and cloud software for accelerating vehicle software innovation
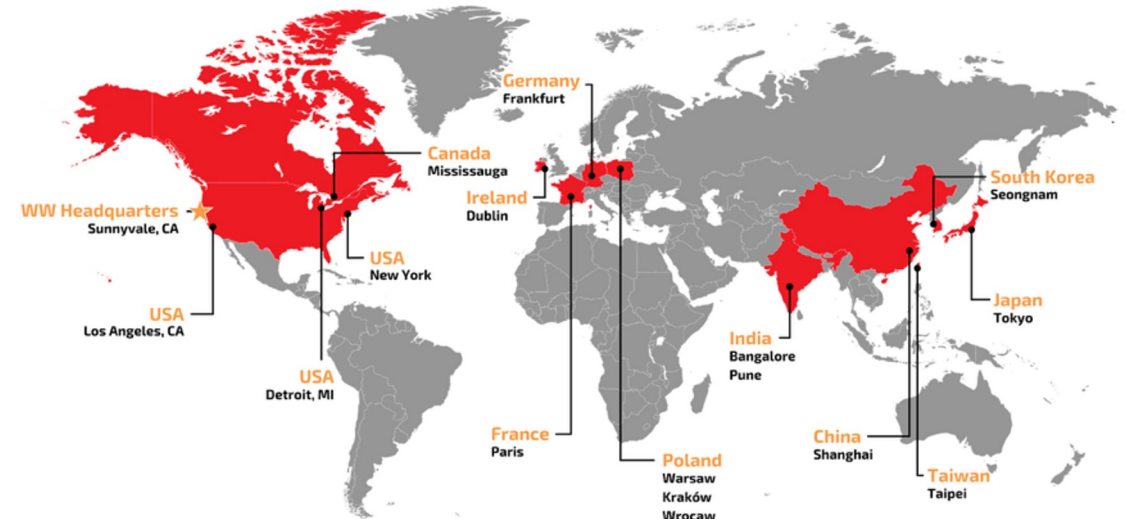
Announced OEMs in Production

OUR TECHNOLOGY IS IN OVER **4 MILLION** PRODUCTION VEHICLES

HYUNDAI
KIA
GENESIS

Tier 1 and Tier 2 Partners

NXP
LG
HL Klemove
HYUNDAI MOBIS
BROADCOM
MARVELL
Micron
HYUNDAI AutoEver
Elektrobit
MARELLI
REALTEK
ST
OP mobility
Google Cloud
Azure
aws

Global Presence

WW Headquarters — Sunnyvale, CA
USA — Los Angeles, CA
USA — Detroit, MI
USA — New York
Canada — Mississauga
Germany — Frankfurt
Ireland — Dublin
France — Paris
Poland — Warsaw, Kraków, Wrocaw
India — Bangalore, Pune
China — Shanghai
South Korea — Seongnam
Japan — Tokyo
Taiwan — Taipei

Certifications and Awards

UL CERTIFIED FUNCTIONAL SAFETY MODULE
ISO26262 ASIL-D
Automator Safety Interlock

Automotive News PACE PILOT 2025 FINALIST

AUTOTECH BREAKTHROUGH AWARD 2024 — OVERALL CONNECTED VEHICLE INNOVATION OF THE YEAR

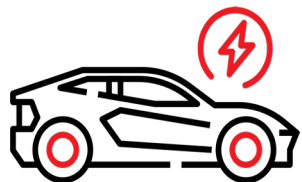Forbes 2024 AMERICA'S BEST STARTUP EMPLOYERS — POWERED BY STATISTA

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Our Mission

Partnering with automotive OEMs, fleet operators and suppliers to accelerate vehicle software innovation

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Expanding use of Edge AI in Automotive

Efficiency Optimization
enabling dynamic, real-time model execution to optimize powertrain

Predictive Maintenance
Monitoring continuously all components to anticipate failures

Personalized Experiences
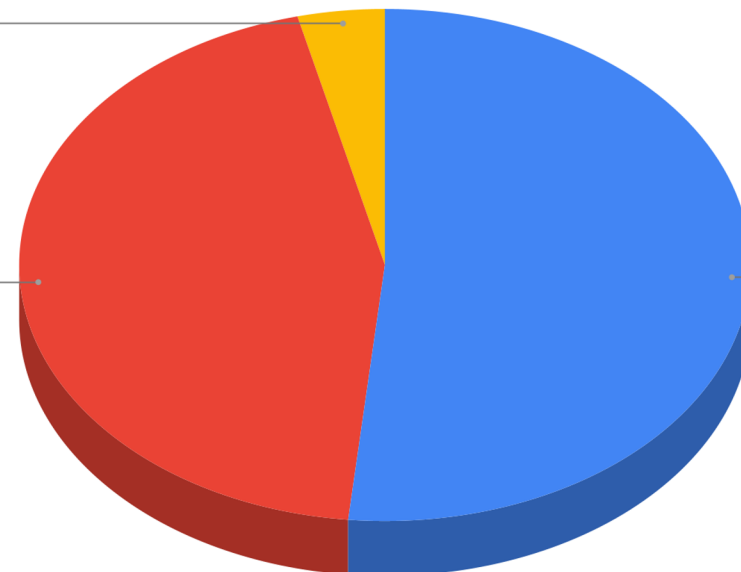adapting to the unique preferences and habits of each user

CyberSecurity
embedding intelligent threat detection and response mechanisms
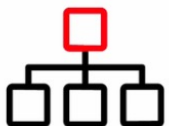
Vehicle-Only
3.8%

Hybrid
44.6%

Cloud-Only
51.6%

Vehicle-Only = Vehicle data & inference
Hybrid = Vehicle data, cloud inference
Cloud-Only = Cloud data & inference
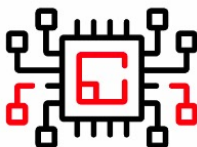
Essential Infrastructure Requirements

Network Architecture

- **Flexible**, **real-time** data access
- The **right data** at the right time
- Highly **configurable**, software-defined network architecture

Data Integration

- **High volume** data (video, …), across multiple vehicle domains with metadata or **context**.
- **Dynamic** data discovery and runtime reconfiguration

Compute Infrastructure

- Centralized, **flexible** compute environment
- Diverse application **workloads**—both AI-driven and traditional
- **Dynamic** allocation of compute

Automotive-specific MLOps

- Required for automotive-specific constraints: safety, **standards compliance**
- Hardware-aware model **optimization**, precise ECU targeting,

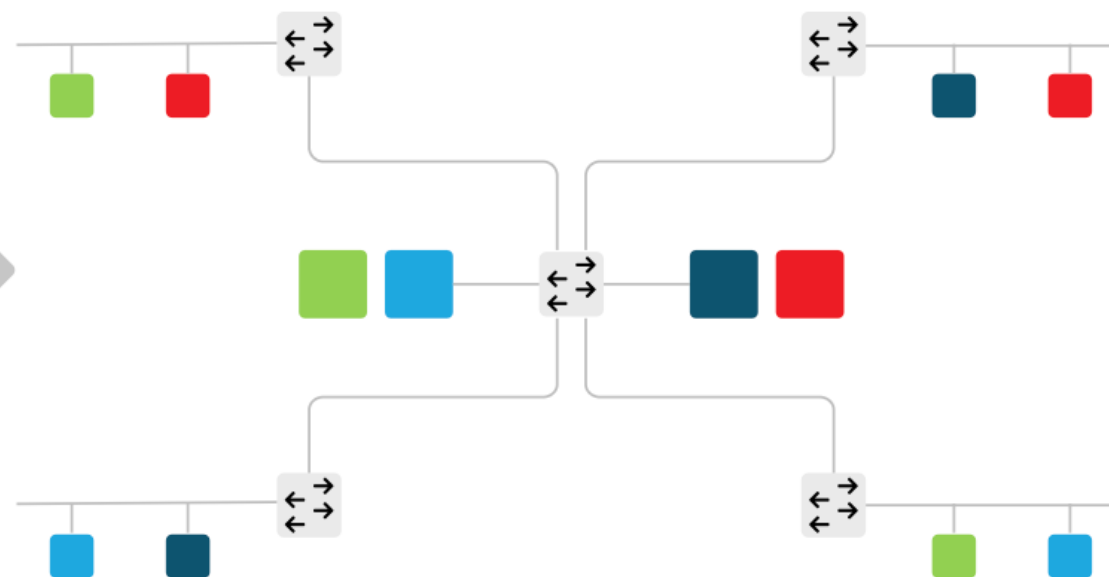**SONATUS**

AI Infrastructure enabled by SDV Technologies

*The move to modern Ethernet- and IP-based networks—**Software-Defined Vehicles (SDVs)**—is crucial for enabling the reliable and scalable deployment of AI within the vehicle.*
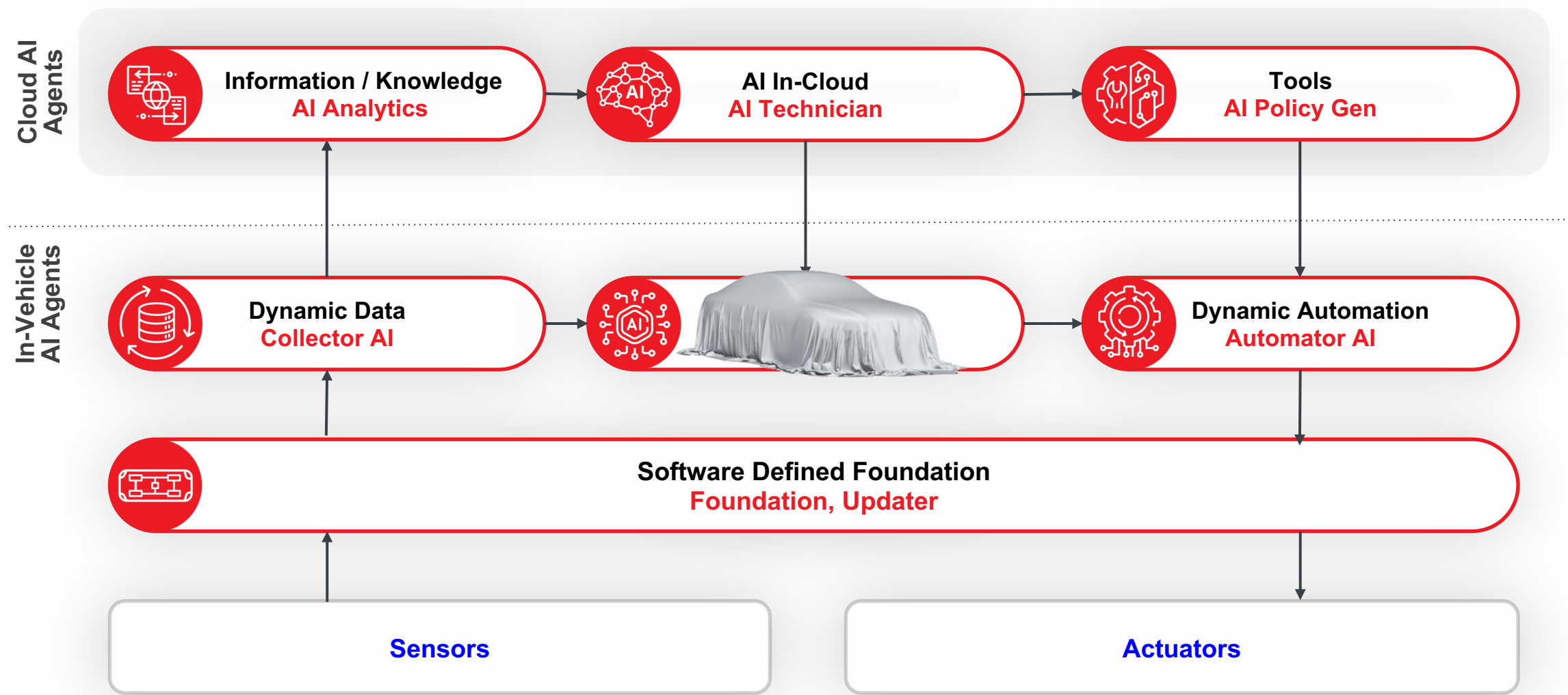

10BASE-T1S

Gigabit Ethernet
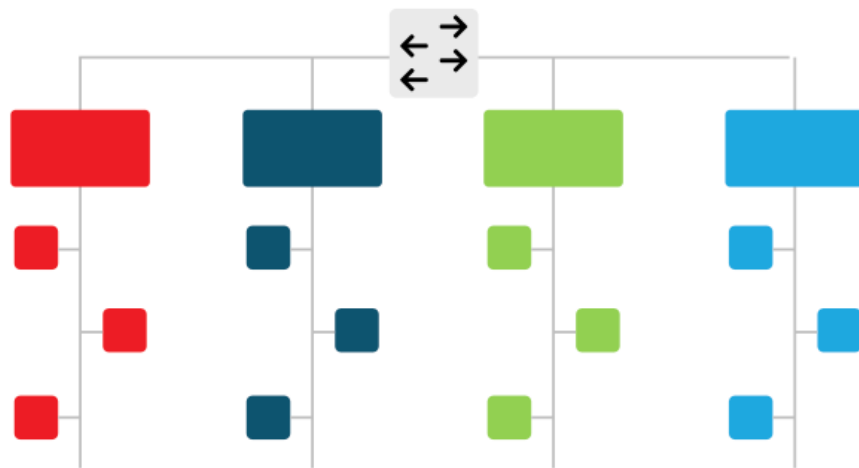
Domain Based Isolated CAN Busses

Ethernet based vehicle network

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Holistic Approach to Automotive SDV & AI Technologies

Cloud AI Agents

- Information / Knowledge — **AI Analytics**
- AI In-Cloud — **AI Technician**
- Tools — **AI Policy Gen**

In-Vehicle AI Agents

- Dynamic Data — **Collector AI**
- Dynamic Automation — **Automator AI**

Software Defined Foundation
Foundation, Updater

Sensors

Actuators

AI-Technician as UX Game Changer

Vehicle and Fleet-wide Service History

Owner's Manuals

AI

OEM Diagnostic Knowledge Bases

Factory Service Manuals

Real-Time Vehicle Data

DTCs

Images/Video

Log Files

Location

SDV Platform

ECU Signals

Network Statistics

NSS Statistics and more

Driver

Service Technician

OEM Engineer
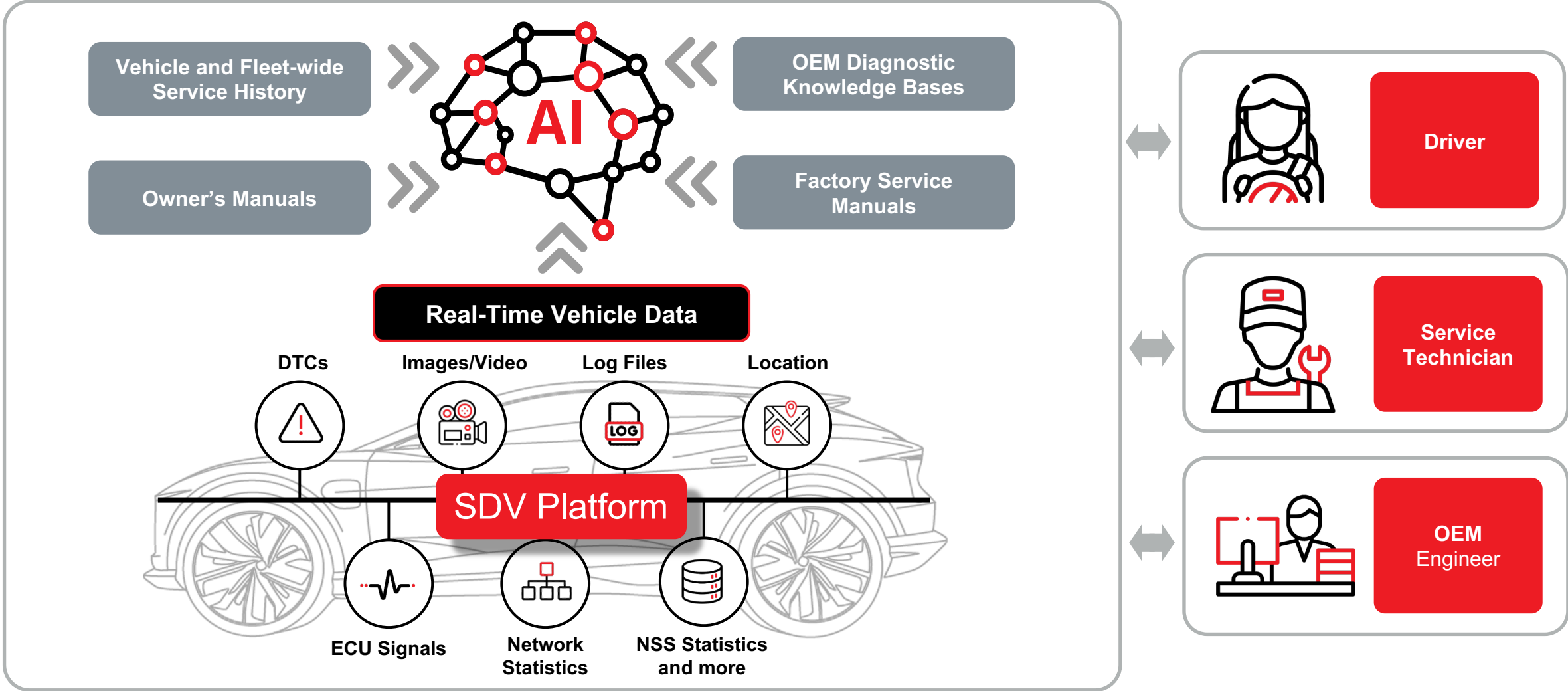
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Thank You

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