

• Satellite Architecture

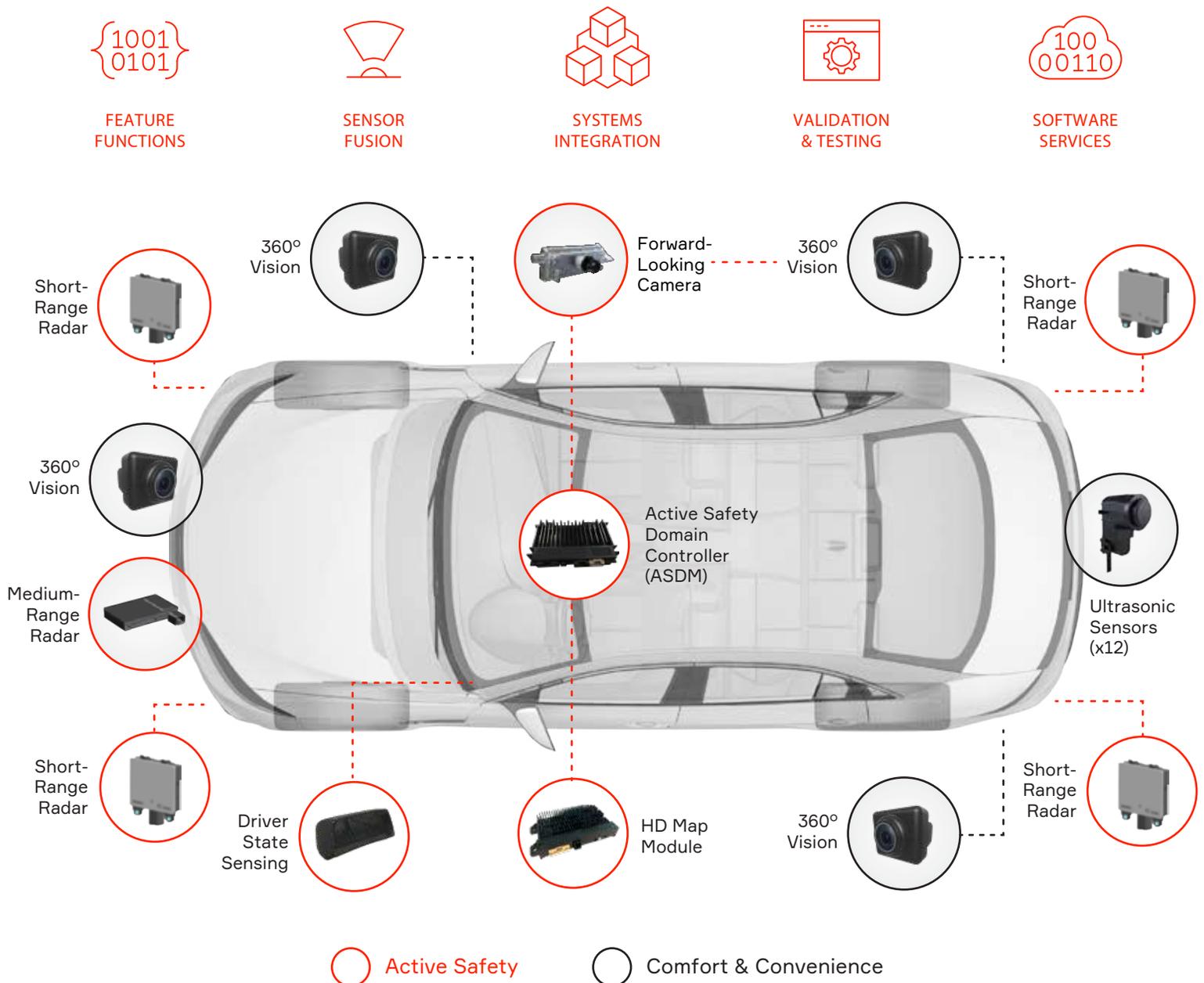


Aptiv Satellite Architecture

Satellite Architecture is Aptiv's flexible and scalable approach to advanced safety that optimizes performance and cost while reducing mass and complexity.

Industry-Leading Solution for Advanced Safety

Satellite Architecture pulls intelligence out of the sensors and centralizes it in a powerful active safety domain controller. Coupled with sensor fusion, software services, holistic validation and full systems integration, this approach optimizes the vehicle's brain and nervous system.



Reduced Vehicle Mass

Up-integration and optimization eliminate redundant components such as power supplies, housings and brackets

TRADITIONAL ADAS

SATELLITE ARCHITECTURE

UP TO
30%
MASS REDUCTION

TRADITIONAL ADAS

- Forward Radar
- Forward Radar Bracket
- Forward Camera
- Forward Camera Bracket
- 360° Radars
- 360° Radar Brackets
- Parking Assist Module
- Surround View Module

SATELLITE ARCHITECTURE

- Satellite Forward Radar or RACam
- Satellite Forward Camera or RACam
- Satellite Forward Camera Bracket
- Satellite 360° Radar
- Satellite 360° Brackets
- Active Safety Domain Controller

Functionality up-integrated into a single controller

REDUCTION OF UP TO 1.4 KILOGRAMS

• Eliminate Redundant Power Supplies

• Reduce Bracket Size

• Reduce / Eliminate Housings

• Reduce Harness Size

Improved Performance

Centralization and Aptiv's sensor fusion unlock new capabilities

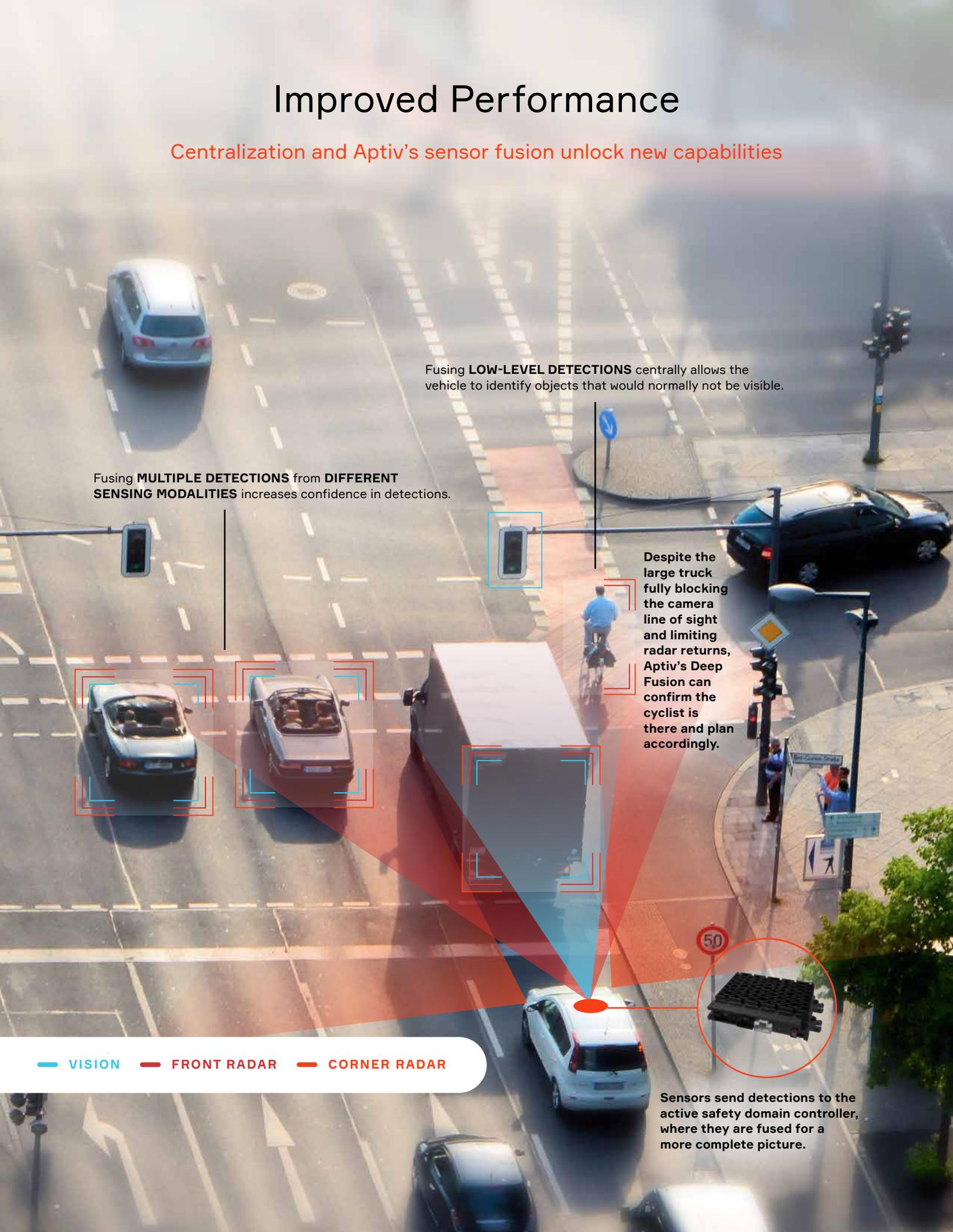
Fusing **LOW-LEVEL DETECTIONS** centrally allows the vehicle to identify objects that would normally not be visible.

Fusing **MULTIPLE DETECTIONS** from **DIFFERENT SENSING MODALITIES** increases confidence in detections.

Despite the large truck fully blocking the camera line of sight and limiting radar returns, Aptiv's Deep Fusion can confirm the cyclist is there and plan accordingly.

— VISION — FRONT RADAR — CORNER RADAR

Sensors send detections to the active safety domain controller, where they are fused for a more complete picture.



Enhanced Flexibility

Applies Aptiv's Smart Vehicle Architecture™ design philosophy to active safety



PROVIDES PACKAGING FLEXIBILITY through satellite sensors, helping in areas where space is at a premium



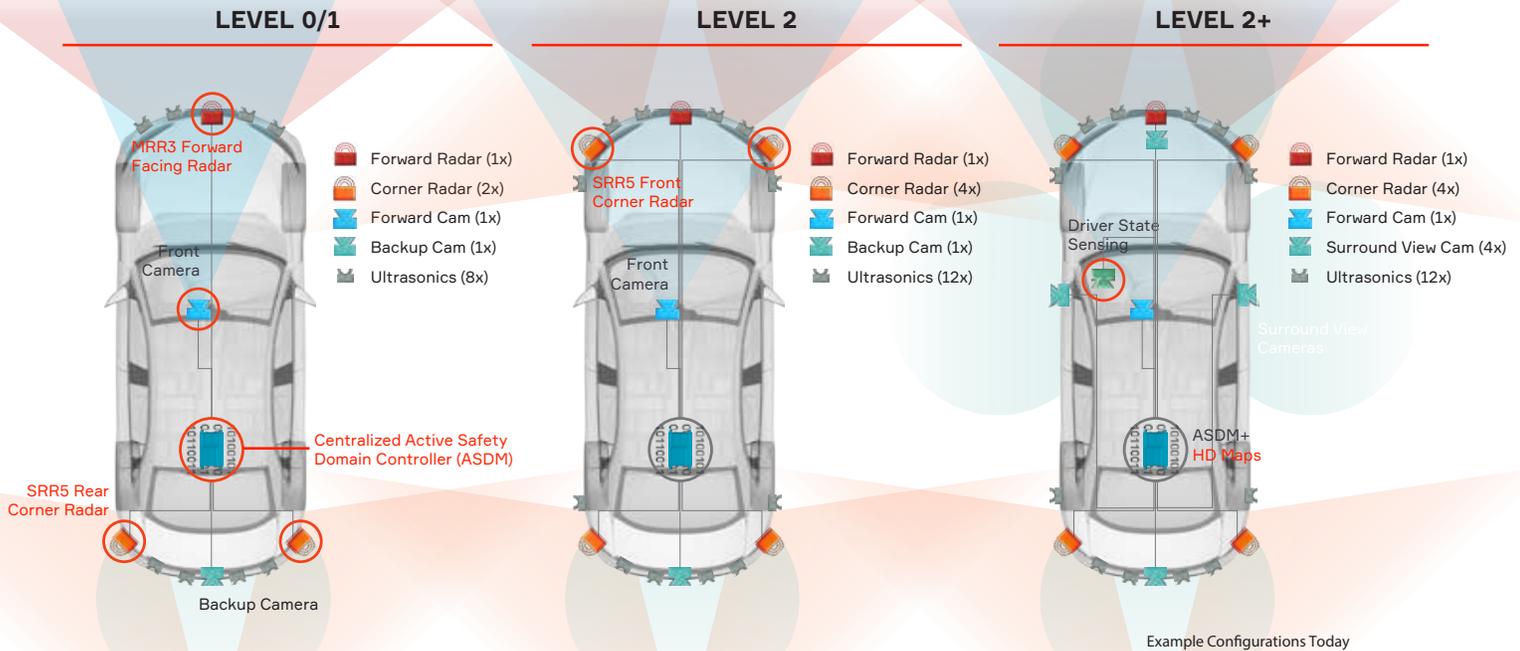
ADDRESSES THERMAL CHALLENGES by relocating vision processor to the domain controller



SIMPLIFIES SCALABILITY AND UPGRADEABILITY with a common interface to the vehicle architecture, regardless of sensor configuration

Zero Accidents, Zero Fatalities

Satellite sensors are simple and cost effective to add
as level of automation increases



Each year, vehicle manufacturers add innovative active safety features that reduce accidents and save lives. These innovations often require new sensors — and every sensor has its own power, packaging and data processing requirements. With its centralized approach, Aptiv's PACE Award-winning Satellite Architecture simplifies those additions and makes it easier to achieve higher levels of automation, while ensuring integration and providing full lifecycle management.

