

A Software-First Approach to High-Speed Automotive Industry Transformation

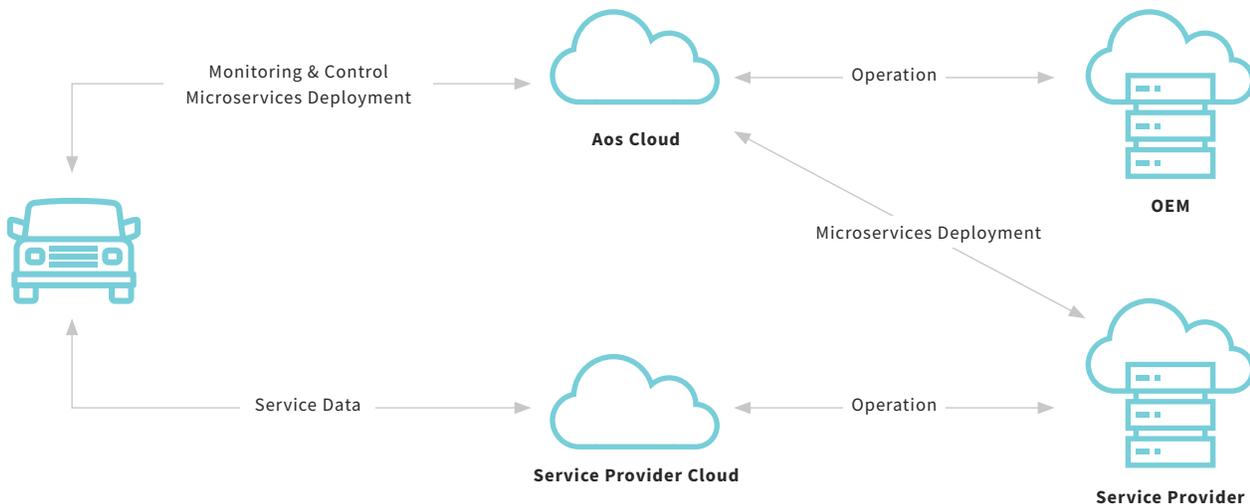
INNOVATE AT THE SPEED OF SOFTWARE TO STAY AHEAD OF THE COMPETITION

Driven partly by connectivity services, new business models could expand automotive revenue pools by about 30%, adding up to \$1.5 trillion by 2030¹. Automotive companies must be forward-thinking to keep up with this rapid change of pace. As the future of transportation transitions from a standalone, private vehicle model to a shared vehicle economy, innovating at hyperspeed is a must to expand your customer base.

AUTOMOTIVE INDUSTRY, MEET AOS

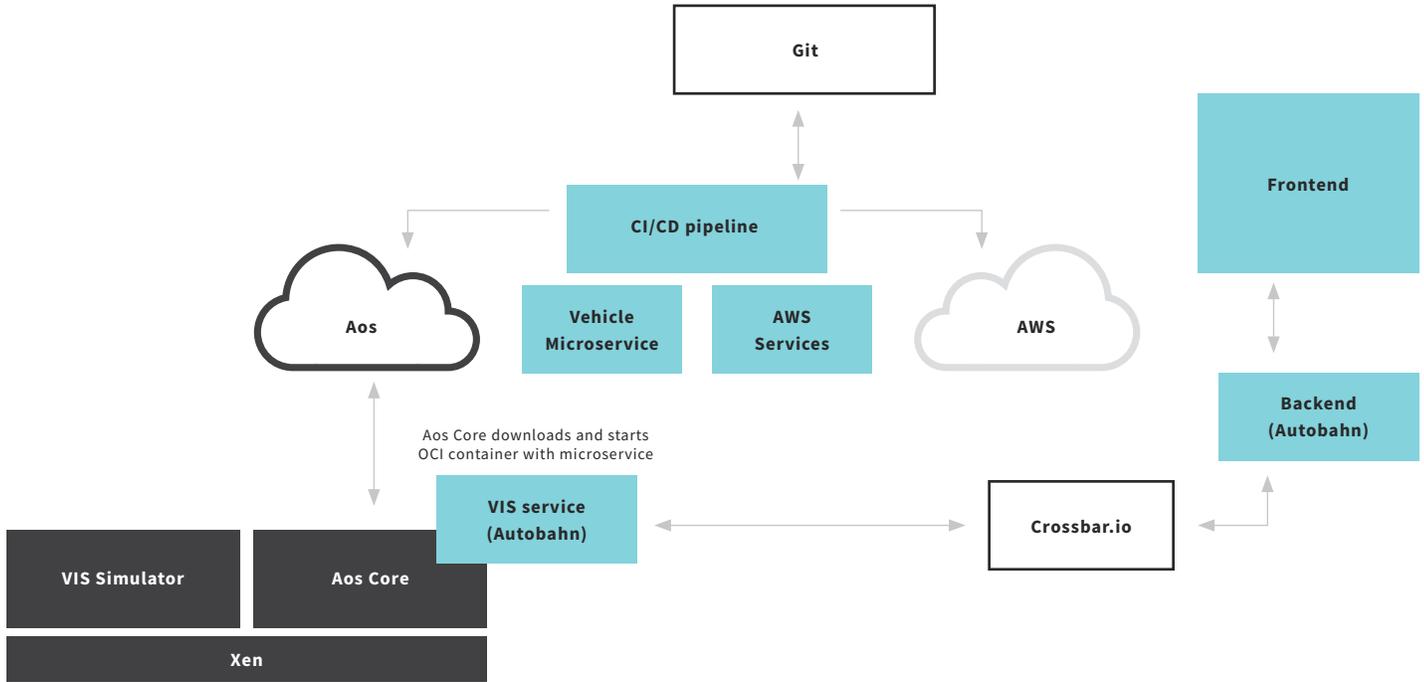
Aos, an open source connected services deployment and orchestration platform, enables OEMs and Tier 1 organizations to transform *at the speed of software* by making it possible to standardize software development languages, tools and processes to create and manage cloud applications that run directly in the connected vehicle.

In many ways, Aos is “Kubernetes” for vehicles, as it allows developers to install and run containerized services on a connected vehicle. Aos does this while also managing the limitations of the vehicle’s computer, including computing power, memory and network throughput, as well as ensuring safe and secure operations for connected cars.

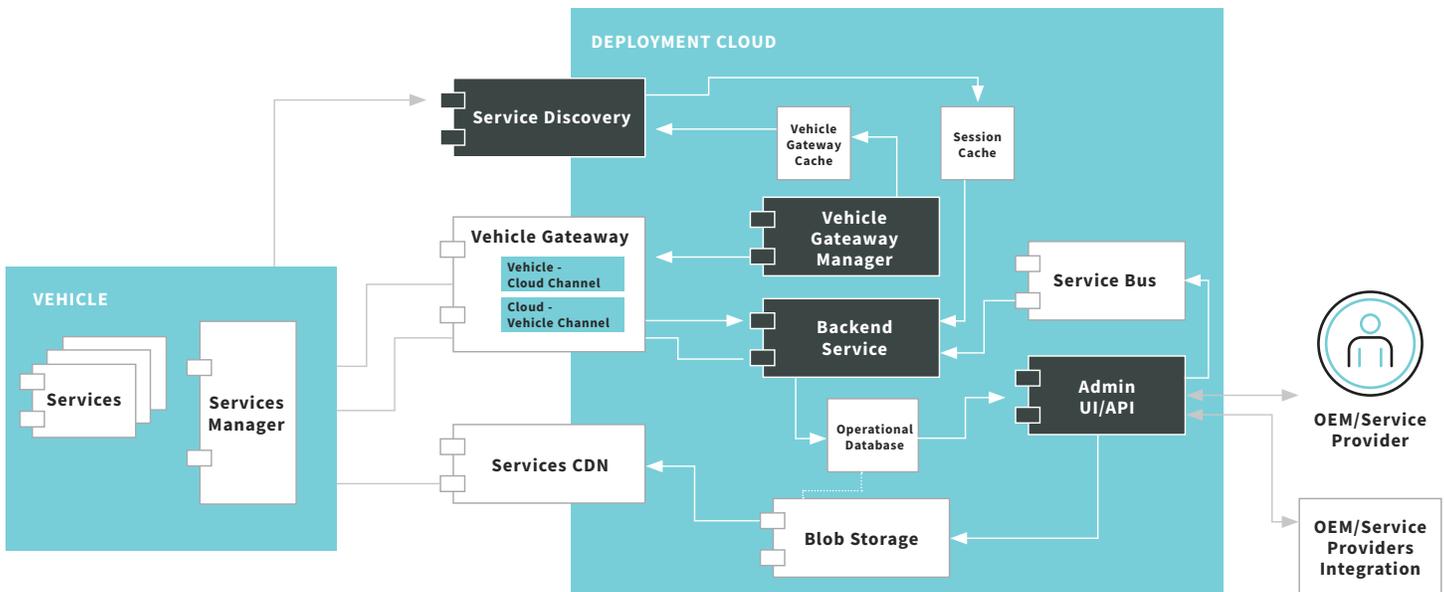


¹ <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/disruptive-trends-that-will-transform-the-auto-industry>

SERVICE EXAMPLE



SYSTEM HIGH-LEVEL ARCHITECTURE



UNLOCK NEW BUSINESS MODELS AND REVENUE STREAMS WITH AOS

Aos unlocks new business models and revenue streams for the automotive industry. At any stage of your innovation vision, the platform enables you to achieve the following core business considerations that are essential to successfully transform the connected vehicle into a valuable business offering:

		CORE BUSINESS CONSIDERATIONS FOR AUTOMOTIVE INDUSTRY TRANSFORMATION	
		Vehicle OEMs & Platform Owners/Subscribers	Connected Car Services
Aspects	Revenue	NEW REVENUE STREAMS	NEW MARKETS & BUSINESS CASES
		<p>“According to our base case scenario, global annual industry revenues from connectivity are expected to increase six-fold from approximately EUR 30 billion in 2014 to approximately EUR 170 billion to 180 billion in 2020,” said McKinsey & Company</p>	
	Control & Interference	END-TO-END CONTROL	CLOUD-TO-EDGE APPROACH
		<p>OEMs will have to carefully assess where to open up the car and provide platforms for third-party innovations, such as apps and services. The Aos platform offers the full control of software deployment processes in the cloud, as well as the execution processes within the car.</p>	<p>Connected cars have the ability to optimize their own operation and maintenance, as well as the convenience and comfort of its passengers and quality of service using onboard sensors and internet connectivity, even when connectivity is interrupted.</p>
	Integration & Complexity	SOFTWARE VEHICLE	NO HARDWARE INTEGRATION
		<p>The vehicle and its capabilities are defined and represented fully by software (i.e. the vehicle’s complexity is expressed through software). Enabling new capabilities and user experience can be as easy as updating software APIs without hard boundaries to specific implementations of software services and applications.</p>	<p>All hardware complexity is abstracted through standardized APIs. Any safety-related concerns are eliminated by the full isolation of the cloud software. Additionally, without the need of binding to a particular hardware implementation, the complexity of the software is also reduced.</p>
		<p>“A mindset shift from hardware make-or-buy decisions to software is essential when it comes to car connectivity.”¹</p>	
	Time & Effort	RUN-AS-A-SERVICE	TIME-TO-MARKET
<p>Up-time and maintenance efforts are minimal because of the SaaS approach, infrastructure-agnostic architecture, automotive-grade scalability and availability of the solution.</p>		<p>Deployment and service management at an extremely high scale is simplified and automated. New services and updates can be rolled out seamlessly without interfering with critical elements of the vehicle.</p>	

¹ https://www.sas.com/images/landingpage/docs/3_McKinsey_John_Newman_Connected_Car_Report.pdf

ABOUT EPAM

EPAM (NYSE: EPAM) proudly serves Fortune 500 and Global 2000 companies, solving our customers’ challenges through innovative, future-focused technology and services, engineering excellence and deep industry expertise. Our customers are risk-takers and pioneers who come up with ideas that may change the world – and we help make them a reality.

Are you ready to accelerate at the speed of software and open new revenue streams by integrating new, internet-connected platforms with unlimited business potential? Contact us today to get the conversation started.

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