

CASE STUDY

Automotive

ADAS and IVI architecture analysis of the top three OEMs for a global motor vehicle manufacturer



About the client

Our client is a leading global luxury original equipment manufacturer. The company specializes in the manufacturing of motorcycles and performance luxury vehicles.



Headquarters:
Munich,
Germany



Revenue
USD 37.002 Bn



Employees
10,001+



Objectives

To retain their position as a leader in motor vehicle manufacturing, the client was keen on understanding the approach and best practices followed by the top three OEMs in designing the ADAS and IVI architecture. The client also sought to gain a comprehensive understanding of how OEMs are maintaining seamless functioning and user interface of ADAS and IVI stack in their respective platforms.

To understand this the luxury OEM wanted to:

- Outline the vehicle ADAS and IVI architecture of the top three OEMs and their goal toward developing software platforms
- Identify the design philosophy and best practices in developing ADAS and IVI architecture
- Benchmark prime attributes of the ADAS and IVI architecture of the top three OEMs:
 - Architecture framework
 - OS, middleware, and software stack
 - Technology readiness and supplier readiness
 - Adoption timeline



Solution and approach

To meet the organization's ask, Netscribes conducted in-depth step-by-step research to unravel the ADAS and IVI architecture approach of top-3 OEMs. The analysis consisted of four steps focused on the following:

- Step 1- OEM approach and aspirations
- Step 2- OS, Middleware, and Software Stack Architecture
- Step 3- Identify best practices
- Step 4- Technology readiness/ Supplier dynamics

Netscribes identified and analyzed the ADAS and IVI architecture approach and aspirations of the top three OEMs through a comprehensive, strategic framework. Through the framework, Netscribes also effectively outlined their best practices, technology readiness, and supplier dynamics. The framework is as follows:

Demand side



OEM approach and aspirations

- Mapping OEM aspirations with SW approach/framework
- Designing and structuring of software architecture and framework
- Creating a roadmap for ADAS and infotainment architecture development
- Fixing on whether to follow a manufacturing or buying approach



OS, Middleware, and Software Stack Architecture

- ADAS & IVI architecture layout
- Software architecture technology breakdown by OEMs
- OTA update framework followed for ADAS and infotainment
- Direction and outlook



Identify best practices

- Identify best practices in designing and developing software architecture/framework for ADAS & IVI
- Success stories and key challenges faced

Related reading: [Video and image annotation support for ADAS/AD in mobility](#)

Supply side



Supplier dynamics

- Software technology supplier mapping
- OEM-Supplier dynamics
- Who-supplies-whom (best effort basis)



Results and benefits

Leveraging insights generated from the research, the client was able to enhance their technological readiness and the time taken for adoption. This also helped them acquire a comprehensive understanding of the ADAS and IVI architecture approach of the top three OEMs and their key attributes and best practices.

Transform your automotive success story with Netscribes' strategic market research solutions to make data-driven decisions that outperform competition.

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