

# TECHNOLOGY LANDSCAPE OF AUTOMOTIVE ELECTRICAL/ELECTRONIC ARCHITECTURES



## A Leading Global Automotive Tier 1 Supplier

The Client came to PreScouter for help in further developing the capabilities to support OEM customers with different needs regarding electrical/electronic vehicle system architectures and the interactions of hardware and software.



### CHALLENGE

PreScouter's challenge in this Research Support Service Project was to help the Client team define the technology landscape, OEM architecture preferences, key performance criteria, and the impact of these decisions for executives and engineers alike.



### APPROACH

PreScouter began by defining the fundamentals of electrical/electronic architectures, profiling key leaders in the space, and identifying performance criteria. The team defined relevant architectures, including software interactions, highlighted the state-of-the-art in industry and in academia, determined commercial roadblocks, and established projected commercialization timelines.

PreScouter next evaluated the advantages and disadvantages of a software-first approach for design, highlighted market reports and outward-looking white papers, and recruited a Subject Matter Expert to assess the evolution of architecture and software.

For the final stage, PreScouter focused on opportunities for future vehicle electronic architecture and software, looking at the significance of the vehicle system architecture decisions made by the OEMs.



### OUTCOME

PreScouter completed a detailed investigation of the technology landscape of electrical/electronic automotive architectures, followed by a deep analysis of future trends and challenges. These results and analyses were used to create a roadmap for development of novel architectures and to highlight areas of focus for the Client team to target over the next 3-5 years.