

GLOBAL AUTOMOTIVE OEM MODERNIZED CONNECTED VEHICLE AND IN-CABIN EXPERIENCES

Multi-year embedded engineering across IVI, mobility, and AI

Challenge

A leading global automotive OEM with a luxury car segment needed to modernize its connected vehicle platform and in-cabin experience across multiple regions, from intelligent voice assistants and AR navigation to mobility operations and dealer-facing services. Legacy systems on aging chipsets, manual operations support, and fragmented DevOps across 6+ countries slowed product velocity and constrained the ability to differentiate on luxury-grade digital experience. The OEM needed an embedded engineering partner to execute end-to-end.

Approach



Engineered an intelligent in-vehicle virtual assistant — ported from C++ to Rust on Qualcomm SA8155, then rewritten in Go — with NLP, Google ASR, ML-driven actions for AC, music, and weather, and a Flutter-based IVI experience.



Built connected vehicle and mobility operations on AWS, covering telemetry streaming, driver behavior scoring, vehicle management, ADAS features, and AR-based navigation overlays for safer, more intuitive driving.



Developed a unified mobile experience with single sign-on across finance, lease, and vehicle maintenance — plus a CTP admin portal with batch goodwill subscriptions, RBAC, and SAP integration for dealer operations.



Implemented a global DevOps strategy with a unified CI/CD pipeline across 6+ countries, and migrated Ops metrics from RDS MySQL to Amazon Redshift for scalable analytics and platform reliability.

Outcomes Delivered



Delivered a next-generation intelligent assistant and AR navigation experience that differentiate the OEM's luxury segment on safety, convenience, and in-cabin intelligence.



Unified mobility operations, finance, and maintenance into a connected platform supporting telematics, payments, and dealer workflows at multi-country scale.



Standardized global engineering through a common CI/CD pipeline and modern data warehouse, accelerating release velocity and operational visibility across regions.

Closing

Veltris combined embedded systems engineering, connected vehicle platforms, and applied AI to give a global automotive OEM a modernized digital backbone — spanning in-cabin assistants, mobility operations, dealer services, and global DevOps for a luxury-grade connected experience.