



# Wind River Automotive Services Catalog: Auto Software Performance Optimization

## MAXIMIZE EFFICIENCY AND RESPONSIVENESS ACROSS ANDROID AND LINUX PLATFORMS

Software performance is a key differentiator for automotive OEMs and suppliers. From IVI responsiveness to boot times and connectivity, a software stack's efficiency directly impacts user satisfaction, reliability, and brand perception. Yet optimizing system performance requires deep expertise across kernels, middleware, containers, and hardware acceleration. Without the right tuning, automotive platforms risk slow startup, wasted resources, and inconsistent responsiveness.

Wind River provides specialized services to assess, optimize, and future-proof Android and Linux platforms, helping OEMs and suppliers deliver faster, leaner, and more responsive in-vehicle experiences:



### PERFORMANCE OPTIMIZATION

- Faster Linux boot time with kernel parameter tuning, initrd minimization, and systemd parallelization
- Optimized Android IVI responsiveness with profiling, memory tuning, and UI rendering enhancements
- Tailored Linux kernel and middleware stacks for workload-specific performance gains



### RESOURCE ISOLATION AND CONTAINERIZATION

- Linux containers to isolate Android and Linux subsystems
- Dynamic resource allocation and secure inter-process communication



### SYSTEM PROFILING AND CONNECTIVITY

- Advanced diagnostics (e.g., Perfetto, systemd-analyze) to identify and resolve bottlenecks
- Optimized Ethernet/IP networking performance, taking advantage of SoC hardware acceleration where available



### Business Outcomes

- Faster boot times and smoother IVI performance
- Optimized resource utilization and lower latency
- Future-ready platforms tailored for auto-specific workloads

## WHY WIND RIVER

With decades of embedded expertise and proven success in delivering production-grade software, Wind River enables OEMs, Tier 1s, and suppliers to meet performance, safety, and lifecycle requirements in the software-defined vehicle era.

To discuss how Wind River can help optimize your automotive software performance, visit us at [www.windriver.com/contact](http://www.windriver.com/contact).