Automotive Services Catalog: Android Platform Maintenance

OFFLOAD COMPLEX BSP AND SECURITY UPDATES TO THE INTEGRATION EXPERTS

Maintaining Android platforms in automotive environments requires continuous integration of security and board support package (BSP) updates — among the most resource-intensive aspects of platform maintenance. These updates provide critical performance improvements, vulnerability fixes, and hardware enablement, yet aligning them with OEM/Tier 1 customizations adds complexity. Without disciplined impact analysis, rigorous testing, and compliance validation, BSP and security updates can introduce instability, regress performance, or compromise certification readiness.

Aptiv helps customers overcome these challenges through specialized Android lifecycle services:

BSP Integration and Impact Analysis

- Integrate BSP releases (kernel, HALs, firmware, bootloader) to ensure compatibility with evolving SoC and hardware updates.
- Perform impact analysis and resolve conflicts with OEM/Tier 1 customizations.
- Conduct regression and compliance testing (CTS/VTS) to ensure platform stability and certification readiness.

Security Updates and Risk Analysis

- Analyze monthly Android security bulletins and relevant AOSP changes for security and stability impact.
- Provide risk-based recommendations aligned with automotive cybersecurity standards (ISO 21434, UNECE R155).
- Integrate selected patches and fixes into customers' build trees on a scheduled cadence.

Business Outcomes

- Faster adoption of BSP performance, feature, and security updates
- Reduced integration risks and downtime
- Verified compliance and Google certification readiness

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