

How Hyundai Motor Company Secures the Cars of the Future with Cybellum



Hyundai Motor Company - A Legacy of Innovation

Hyundai Motor Company (HMC), founded in 1967, is one of South Korea's foremost automobile manufacturers with a strong global presence. The company produces a broad range of vehicles, including passenger cars, SUVs, trucks, and buses. Hyundai's diverse portfolio includes the well-known Hyundai brand, offering a variety of passenger cars, SUVs, and electric vehicles, as well as the luxury Genesis brand, known for its premium sedans and SUVs. In recent years, Hyundai Motor Company has also become known for its bold cars and designs that shape the future of electric vehicles, with models such as the Hyundai IONIQ 5 and the Genesis GV60 receiving countless awards.

Product Security at Hyundai Motor Company

Hyundai's commitment to quality extends beyond vehicle performance, focusing equally on the security of its hardware and software systems. Hyundai's product security teams are responsible for evaluating the software quality and identifying security vulnerabilities in all systems integrated into HMC vehicles. The team ensures that Hyundai's products meet the highest standards of cybersecurity, safeguarding against potential vulnerabilities in open-source software (OSS) used in development.

Looking for a Product Security Solution

HMC's high standards for innovation extends beyond its designs and cars to cybersecurity as well. As the complexity of software in modern vehicles continues to increase, HMC realized the need for a robust product security platform. The team wanted a solution that could effectively analyze Software Bill of Materials (SBOMs) from their development partners, with a particular focus on inspecting OSS licenses and identifying security vulnerabilities.

The key requirements for HMC included:

1. Managing a complete SBOM

HMC required a strong asset management backbone to be used for both OSS licensing analysis and vulnerability management. Specifically, the ability to extract SBOMs from multiple sources, including directly from compiled software and binaries, was paramount for HMC.

2. Advanced Vulnerability Management

HMC needed to conduct thorough vulnerability analysis and management, including the ability to identify, prioritize and mitigate vulnerabilities more efficiently.

3. Open Source Management

The HMC team wanted to perform comprehensive OSS license management, in order to identify OSS licensing gaps.

Choosing the Product Security Platform

In their search for a solution, HMC evaluated several other solutions. Cybellum's Product Security Platform stood out due to a number of reasons:

- Its **advanced support for multiple languages**, architectures, and operating systems.
- Its **high-fidelity, complete SBOM analysis** and management capabilities.
- Its **more efficient vulnerability management**, resulting from the completeness of its SBOMs.
- Its **comprehensive OSS licensing capabilities**, which are also a direct result fo the high quality SBOM analyzed in the platform.

One of the most critical features for HMC was Cybellum's ability to conduct binary-based SBOM analysis. The platform's OSS license and vulnerability analysis capabilities were equally important, allowing Hyundai to manage security risks more effectively. After a thorough 5-month proof of concept (PoC), Hyundai chose Cybellum as its product security solution.

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We are impressed with Cybellum's capability to analyze and manage comprehensive SBOMs, allowing us to ensure software security across our vehicle platforms, as well as manage OSS licenses with ease. The proactive support provided through Cybellum has been invaluable in meeting our product security goals.

Researcher, Quality and Security Vulnerability Management, Hyundai Motor Company

Driving Results with Cybellum

Since adopting The Product Security Platform, HMC has measured multiple significant results:



Supplier Independence

The ability to perform SBOM and OSS-related analyses independently was a huge advancement over their previous reliance on reports provided by development partners.



SBOM & Assurance Reliability

More accurate and thorough SBOM management, ensuring that final software deliverables are fully assessed for security vulnerabilities based on complete, reliable SBOMs.



Increased Efficiency

Cybellum's solution also enabled HMC to streamline its analysis processes, enhancing the accuracy of its security assessments, and saving time for security and quality teams alike.

Additionally, with Cybellum's proactive and responsive support, HMC has experienced significant improvements in their product security capabilities. As noted by HMC, metrics and KPIs are expected to improve further as Cybellum plays a key role in Hyundai's expanding product security initiatives. HMC anticipates using Cybellum extensively as they continue to scale their security operations, with the solution positioned to be a critical component of their strategy moving forward.

HMC's Cybersecurity Vision

Hyundai's vision for product security is to ensure that every software component in their vehicles is thoroughly evaluated for quality and security. By integrating Cybellum's Product Security Platform into their security framework, Hyundai is taking proactive steps toward enhancing the cybersecurity of their products, ensuring that their customers remain safe as they reimagine the future of cars around the world.

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Hyundai Motor Company is one of the most innovative companies in the Automotive world, and we're proud to collaborate with their quality and security teams, supporting their mission of relentless progress.

Eddie Lazebnik, VP Strategic Sales, Cybellum

About us

Cybellum is where teams do product security.

Top Automotive OEMs and suppliers such as Jaguar Land Rover, Nissan, Audi, Faurecia, CATARC, ARTC, Jet-Opto, use Cybellum's Product Security Platform and services to manage the main aspects of their cybersecurity operations across business units and lifecycle stages. From SBOM to Vulnerability Management, Compliance Validation, and Incident Response, teams ensure their connected products are fundamentally secure and compliant – and stay that way.

To learn more about Cybellum, visit cybellum.com

