# NETRISE

Fleet Management - Use Cases
For Device Manufacturers

Complex Systems Expand Attack Surfaces

Fleet Management systems are complex systems that go well beyond GPS location monitoring. Capabilities for real-time engine monitoring and overall vehicle diagnostics have expanded significantly over the past five years. Systems now integrate Bluetooth, WiFi, and cellular into a single integrated solution. To add to the complexity, these system integrations are comprised of many components sourced from a variety of manufacturers. The complexity of remote management opens fleet management systems to a variety of attacks by threat actors.
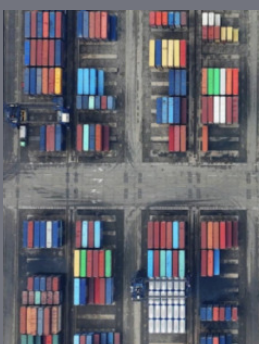
DNV ShipManager Hacked

Fleet Management system hacks are not just theoretical or lab demonstrations. In January 2023 DNV confirmed a ransomware attack on its ShipManager fleet management platform impacting tracking and data analysis on over 1,000 ships. With all of these risks it is incumbent upon the providers of fleet management systems to fully understand what software and firmware exists in these various monitoring devices and fully enumerate the components, vulnerabilities, weak or default credentials and configuration issues.

The NetRise Platform is a cloud-based SaaS solution that analyzes firmware from the binary in a fully automated fashion. It identifies the components within the firmware and can generate a Software Bill of Materials (SBOM). It provides a comprehensive list of vulnerabilities for the firmware analyzed. NetRise's vulnerability enrichment allows product security teams to prioritize vulnerabilities based on threat intelligence, exploit availability, and other criteria.

Key Use Cases

01 | Development/Integration Team

Most development shops spend significant time scoping, tracking, and remediating software issues including security vulnerabilities. NetRise saves time by identifying vulnerabilities across all products and enriching vulnerability data to provide better context for prioritization. Using exploit availability, threat actor correlation, and vulnerability enrichment data provided by the NetRise Platform, security teams can focus on the vulnerabilities that pose the most tangible risk, including those that may not be categorized as a High or Critical risk according to CVSS. NetRise enables its customers to focus on the vulnerabilities that will have the greatest impact in reducing the attack surface, and therefore be more efficient and effective while enhancing the security of a device.

Key Benefits

+ Shorten time-to-market

+ Identify underlying vulnerabilities before shipping a product

+ Aggregate comprehensive SBOMs for all products

+ Comply with various industry standards

+ Lower operational costs

02 | Product Management and Marketing

The Product Management and Marketing teams will benefit from the more detailed information for the products they support. Product documentation, including hardening guides, will be easier to generate and more accurate.

03 | Incident Response

The Incident Response Team investigates a variety of incident types that impact fleet management operations. Issues may be discovered in software which can be part of a device's custom code or it can be within open-source code that was utilized during the development process. Vulnerabilities in open-source components are frequently publicly announced with no advance notice. An important aspect of the response process is to determine where the impacted component exists. The ability to instantly search the organization's entire library of firmware to confirm which devices contain the vulnerable code and which devices are clean is an important step in the response process.

04 | Firmware Library Searches

From time-to-time a new broad-based vulnerability (e.g. Log4j) is announced. From the moment that new issue hits the news Development and Incident Response teams scrambles to determine if it exists anywhere in their systems. With the NetRise Platform users can search their library of firmware and instantaneously see which products contain that new vulnerabilities and start the communications and remediation processes.

05 | Resources

All of the resources involved in the use cases above are highly-skilled and in high demand. The ability to save the time of these individuals has a real benefit in minimizing costs and reducing delays in other critical projects. The ability to minimize delays can have a significant impact in revenues and profits.

Ready for a Demo?

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