

# Building Laptops to Last: How Framework Strengthens Security With Binarly

Framework, a San Francisco-based company with a mission to fix consumer electronics, develops modular, [upgradeable laptops](#) with an eye on sustainability. The company's philosophy is that by making well-considered design tradeoffs and trusting customers and repair shops with the access and information they need, we can make fantastic devices that are still easy to repair, upgrade and customize.

Yet with hardware deliberately designed to extend usable lifetime, firmware security becomes a long-term responsibility.

## The Challenge

Without granular insights into the firmware supply chain, detecting and fixing hidden vulnerabilities can be nearly impossible.

## Prolonged Product Lifespans

Devices need continuous protection as security vulnerabilities emerge over time.

## Complex, Multi-Layer Supply Chain

ODM (Original Design Manufacturer), IBV (Independent BIOS Vendor), and SoC vendors each introduce potential security risks.

## Growing Enterprise Demands

Business-to-business customers require verifiable evidence of ongoing firmware security updates and policies.



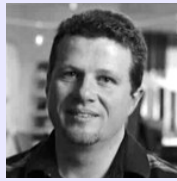
## Solution

Framework engaged with Binarly to incorporate a robust vulnerability scanner directly into their firmware development and release processes. The Binarly Transparency Platform provides:

- 1. Deep Firmware Analysis:** Framework used Binarly's patented technology to automate the detection of vulnerabilities across BIOS binaries, pinpointing the exact modules or lines of code in question.
- 2. Transparent Supply Chain Tracking:** Framework's internal security team was able to map out security gaps at each layer — ODM, IBV, and other third-party libraries — and act on mitigation guidance with clarity on where and how to patch issues.

**3. Accelerated Remediation:** Quick identification of weaknesses speeds up the collaboration process between Framework and its vendors, ensuring security patches arrive before vulnerabilities are exploited.

**4. Enhanced Security Policy:** Binarly's insights help Framework craft a detailed firmware security policy, critical for demonstrating robust practices to enterprise clients.



**Kieran Levin**

*Lead System Architect, Framework*

"Binarly's binary code analysis is extremely effective in finding vulnerabilities in upstream libraries, where source access may not be possible. When Binarly found unknown vulnerabilities in our BIOS, they provided detailed information including where the vulnerability was and the impact associated with it. They then worked directly with our BIOS vendor to fix the vulnerabilities upstream."

## Results

Thanks to Binarly, Framework can confidently offer a more secure, future-proof product line with best-of-breed technologies

By integrating Binarly's scanning solutions, Framework bolsters its supply chain transparency and keeps its long-lived electronics safer over time. The result is a sustainable product lineup that doesn't compromise on security — giving customers the confidence to rely on Framework for years to come.

### About Binarly

Binarly is a U.S.-based firmware and software supply chain security company founded in 2021. Our flagship Binarly Transparency Platform helps device manufacturers, OEMs, and enterprise product security teams detect vulnerabilities, misconfigurations, secrets, and malicious code in devices and software supply chains. Leveraging



decades of research and program analysis expertise, we secure businesses, critical infrastructure, and consumers while assisting organizations in transitioning to a post-quantum cryptography (PQC) environment. For more information, visit <https://binarly.io>.



### Rapid Vulnerability Detection

Previously unknown bugs now surface swiftly, giving Framework the upper hand against emerging threats.



### Stronger Customer Assurance

Enterprise customers see proof that Framework addresses security proactively and consistently.



### Ongoing Protection for Long-Lived Devices

Continuous updates keep hardware safe, aligning with Framework's commitment to sustainability.