Timesys Vigiles® Vulnerability Management Suite: Best-in-Class Security for Embedded Linux Devices

- **Better Data:** Up to 40% accuracy improvement over National Vulnerability Database (NVD) data alone
- **Superior Insights:** Save up to 75% in investigation time and stop chasing "Vulnerability Ghosts" and false positives
- **Key Process Improvements:** Up to 90% reduction in end-to-end security maintenance tasks compared to manual processes
- **Easy Compliance:** Order of magnitude reduction in level of effort to comply with industry and customer-specific security requirements and specifications, government regulations, and security certifications
- **Start Immediately:** Integrated with industry standard Yocto, Buildroot, and Timesys Factory build systems

New Security Challenges Require New Solutions

Are your customers reporting cybersecurity issues with your product before you know about them? Are they asking how soon a software update will fix the issues?

Is your new security team rolling out new cybersecurity policies? Do you need tools and processes to comply?

Do your competitors have public cybersecurity policies and information on their web sites? Are customers wondering why you don't?

Get ahead of your customer requirements and competition with Timesys Vigiles.

Vigiles is a best-in-class Software Composition Analysis (SCA) and vulnerability management solution optimized for embedded systems built on top of the Linux operating system.

Vigiles will reveal your exposure for every product and software release, and provide clear engineering guidance on how to remediate. Now your customers can receive software updates sooner and stay secure throughout the lifecycle.

Accurate, Efficient CVE Detection & Remediation

Millions of lines of code and hundreds of software packages make up a typical embedded Linux operating system. But cybersecurity information is fragmented and incomplete.

Our curated database integrates information from multiple feeds, and provides a 40% accuracy improvement over the entries of Common Vulnerabilities and Exposures (CVEs) in the National Vulnerability Database (NVD).

Now your team can stop chasing "Vulnerability Ghosts" and false positives, reducing investigation and triage tasks by more than 75%.

Unlike general application vulnerability detection tools, Vigiles automatically provides remediation information including patches and updates for your software components.

Featuring unique vulnerability management automation, Vigiles filters reported vulnerabilities so you can focus on only those

Why Timesys Vigiles is the industry's choice for embedded Linux security

GE Healthcare: *"We chose to partner with Timesys in the development of our new portfolio of medical devices to ensure that they stay secure throughout their lifecycle."*

Roshy J. Francis, Chief Technology Officer of Diagnostic Cardiology for GE Healthcare

Lineo Solutions Inc.: *"With Vigiles, Timesys is delivering a breakthrough in the automation of vulnerability identification, tracking, analysis and mitigation."*

Akira Kobayashi, President & CEO of Lineo Solutions, Inc.

VDC Research: *"Timesys is bringing to market a timely solution, designed to make these devices more secure and maintain that improved security posture into the future."*

Roy Murdock, VDC Research

NXP Semiconductors: *"We're partnering with Timesys to highlight best practices for designing and maintaining security in systems using our feature-rich and performance-scalable i.MX applications processors."*

Robert Thompson, i.MX Ecosystem Manager at NXP

that affect the exact Software Bill of Materials (SBOM) used to produce the bootable firmware images on your product. And Vigiles is aware of your Linux kernel and U-Boot configuration as well as the packages and libraries used in your specific project. The service filters out any vulnerabilities affecting features not being used by your product, saving you valuable time.

Vigiles is also used by product teams to accelerate and simplify compliance with industry security standards and customer-specific security requirements, such as managing the security of third-party software used in your products.

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Seamless Fit With New Product Development and Ongoing Maintenance Workflows

Vigiles fits your engineering and maintenance processes and workflows for developing and maintaining embedded systems, with native integration with Yocto, Buildroot, and Timesys Factory.

It offers developer-friendly security capabilities optimized for embedded systems that are not found in any other tools. These include unique features such as kernel configuration filters and tracking applied patches and fixed vulnerabilities in your build system.

Vigiles features expedited notification of newly reported vulnerabilities before they appear as CVEs in the NVD. Now your developers have a critical head start in addressing vulnerabilities before they are announced publicly and can be exploited.

Collaboration is key for rapid CVE remediation. That's why Vigiles includes flexible, intuitive cross-team communication and collaboration tools to streamline your team's work on fixing vulnerabilities. That eliminates redundant work, identifies common fixes across multiple CVEs, enables whitelisting and creates efficient security maintenance processes.

Products that stay secure throughout their lifecycles

Vigiles creates a well-defined, efficient, repeatable and scalable process workflow for developer-driven product security. Vigiles is shown to reduce engineering time spent on vulnerability monitoring and patching by up to 90%.

CVE remediation is expedited because Vigiles automatically identifies "suggested fixes" such as patches or updates of components that will remediate vulnerabilities.

You can see exactly how exposed your products are to identified vulnerabilities and track and manage that risk over time with Vigiles' powerful reporting features:

- Run comparisons and trending reports to monitor CVE remediation progress.
- Identify vulnerability-fixing bottlenecks that are slowing security maintenance processes.
- Track and manage CPU and SoC vulnerabilities with granular detail over time.
- Pinpoint which products have the greatest exposure to focus your team on the areas of highest risk.
- Full BSP lifecycle maintenance service available for turnkey outsourcing of monitoring, patching and updates

Get Started Now

Vigiles is available in a completely free version that enables you to start tracking and filtering vulnerabilities for your project right now. **Learn more at:** https://www.timesys.com/security/vigiles-vulnerability-management-patch-monitoring/

Why Timesys?

Timesys offers the industry's only solutions for developing, maintaining and securing embedded Linux systems that span the entire product lifecycle.

Based on a track record of 20+ years and hundreds of successful product development projects, our offerings capture embedded Linux best practices across every product stage: ideation and prototyping, design, development, integration, testing, release and production deployment, maintenance and upgrades.

Such unmatched expertise and experience are why Timesys is the embedded Linux partner of choice for 1,000+ leading makers of processors, components, BSPs and end-product devices.

Our tools, services and consultation have been instrumental to the success of projects across every major embedded system category, including **IoT, IIoT, Industry 4.0 and a host of industry-specific projects including medical devices, networking systems, energy systems, automotive & transportation, test & measurement**, and many others.

The industry's most secure embedded system products

Timesys customers are market-leading device makers that develop more secure products and bring them to market more quickly thanks to Timesys' unique Secure By Design and Stay Secure solutions. Their products are designed to be more secure and they remain secure, keeping security exploit risk low throughout the product lifecycle.

Check out some of the case studies to see how these device makers avoid making trade-offs between security and time-to-market:

CASE STUDIES

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