Optimizing Application Security Effectiveness to Scale With **Rapid Development**

As businesses modernize their development processes to increase productivity, security teams need an effective way to scale. TechTarget's Enterprise Strategy Group looked at best practices that drive the efficiency needed to rapidly remediate application security vulnerabilities in order to mitigate risk and prevent incidents.

The Need for Effective Remediation of Critical Vulnerabilities

Only 52% of companies say they can effectively remediate a critical vulnerability, and even fewer application security practitioners (44%) agree. (N=350)

Similarly, just **41% are very confident in their ability to** manage the security and compliance risks associated with open source software components used within internally developed applications. (N=350)

The result: Organizations face serious consequences from security incidents.



Top 5 Impacts From Security Incidents



46% Application downtime



38% Unauthorized access to applications and data



34% The introduction of malware

(N=228, MULTIPLE RESPONSES ACCEPTED)



34% Data loss

13%

36%



32% Remediation steps impacted service level agreements (SLAs)

Best Practices Enabling Efficient Remediation of Critical Vulnerabilities

We identified key patterns among the organizations that could efficiently remediate critical vulnerabilities compared to those that could not. By following these best practices, organizations can measurably improve their security program effectiveness.

Aligning goals, along with collaboration

To build a culture of security, we encourage collaboration between application development, security, and operations.



3.3X Organizations able to keep up with vulnerabilities are **3.3x more likely** to have extensively incorporated security into development processes (DevSecOps).

Shifting security responsibilities left to developers while security plays a centralized role

Our application development team is taking on more security responsibilities with support and help from the security team.

- Able to address and prioritize critical vulnerabilities (N=181)
- Cannot address and prioritize critical vulnerabilities (N=168)



What organizational structure best describes how security team members responsible for securing internally developed applications are distributed in your organization?



Fully understanding code composition, including third-party and OSS code

How important is it that you are able to answer each of the following questions about your code? ("CRITICAL" RESPONDENTS ONLY)



Where did your code come from?	Who has access to the different code components	Where is your code stored?	What is the com inventory of a my applicatio third-party, cu	nposition/ code in n (OSS, istom)?	How is the code connected to other code or resources to run my application?
Generating an SBOM is a mandatory part of the application development process at my organization.		4 A	. 7% Agree	17% Agree	
Cannot address and prioritize critical vulnerabilities (N=168)		0%			100%

Measuring Program Effectiveness: Preventing Incidents

Organizations that report the ability to efficiently remediate vulnerabilities were nearly twice as likely to say they have not experienced any serious security incidents tied to a software vulnerability/web application exploit in internally developed applications over the last 12 months.



Conclusion

Organizations should leverage solutions that address these areas to streamline vulnerability remediation without slowing development down. When security teams can partner with development teams to help them efficiently secure the components of their software, both teams can work more efficiently to meet their goals of delivering secure products to fuel company growth.

Mend.io helps organizations build world-class AppSec programs that reduce risk and accelerate development, using tools built into the technologies that software and security teams already use. Its automated technology protects organizations from supply chain and malicious package attacks, vulnerabilities in open source and custom code, and open source license risks.

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