

Exploring the Log4j Zero-Day Vulnerability: Implications for Application Security and Privacy

Publisher: IEEE

Cite This

PDF

Thirumal S ; Udayakumar N ; Kumar N ; Saritha A ; Sheela Gowri P All Authors

6
Full
Text Views



Abstract

Document Sections

- I. Introduction
- II. Litreature Survey
- III. The Exploit
- IV. Mitigation
- V. Conclusion

Authors

Figures

References

Keywords

Metrics

More Like This

Abstract:

The necessity for security to protect the privacy of everyone who frequently uses PCs, cell phones, and IOT devices has increased along with the quick development and expansion of technology. Thus, logs have become a vital tool and greatest buddy for developers and other IT administrators in current technological age. Application logs have been used for a variety of tasks, such as business analytics, security compliance, debugging, and monitoring. Thus, Log4j is a popular open-source Java software library used by developers to monitor the activity of their software applications. Alibaba Cloud security researchers published a notification on December 9, 2023, alerting the public to a new Zero-Day vulnerability affecting the Java logging package log4j, tagged as CVE-2021-44228. With a severity score of 10.0 (the highest rating) this vulnerability allows hosts running software that makes use of this log4j version to execute simple remote code execution.

Published in: 2025 2nd International Conference on Computing and Data Science (ICCDs)

Date of Conference: 25-26 July 2025

DOI: 10.1109/ICCDs64403.2025.11209634

Date Added to IEEE Xplore: 03 November 2025

Publisher: IEEE

► ISBN Information:

Conference Location: Chennai, India

Sign in to Continue Reading

Authors	▼
Figures	▼
References	▼
Keywords	▼



[Back to Results](#)

Need
Full-Text

access to IEEE *Xplore*
for your organization?

CONTACT IEEE TO SUBSCRIBE >

IEEE Personal Account

CHANGE
USERNAME/PASSWORD

Purchase Details

PAYMENT OPTIONS
VIEW PURCHASED
DOCUMENTS

Profile Information

COMMUNICATIONS
PREFERENCES

PROFESSION AND
EDUCATION

TECHNICAL INTERESTS

Need Help?

US & CANADA: +1 800
678 4333

WORLDWIDE: +1 732
981 0060

CONTACT & SUPPORT

Follow

[f](#) [@](#) [in](#) [v](#)

[About IEEE Xplore](#) | [Contact Us](#) | [Help](#) | [Accessibility](#) | [Terms of Use](#) | [Nondiscrimination Policy](#) | [IEEE Ethics Reporting](#) [🔗](#) | [Sitemap](#) | [IEEE Privacy Policy](#)
A public charity, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.

© Copyright 2025 IEEE - All rights reserved, including rights for text and data mining and training of artificial intelligence and similar technologies.