National Stock Exchange of India

Circular

Department: Cyber and Information Security	
Download Ref No: NSE/CIS/50594	Date: December 14, 2021
Circular Ref. No: 02/2021	

To All Members

Cyber Security Advisory: Critical vulnerability in Apache Log4j that allows Remote Code Execution (RCE) CVE-2021-44228 (Log4Shell)

A critical vulnerability has been discovered in Apache Log4j, an open-source Java package that can be exploited to enable remote code execution on impacted servers. The Apache Software Foundation (ASF) has identified the vulnerability as CVE-2021-44228. The vulnerability has been named as Log4Shell. Log4Shell receives the maximum severity rating, 10, on the Common Vulnerability Scoring System (CVSS) scale.

1. **Background**

   Log4j is developed by the Apache Software Foundation (ASF) and is a widely used Java package that enables logging in an array of popular applications and is also incorporated into many popular frameworks, making the impact widespread. The vulnerability is actively being exploited, and when abused, allows a threat actor to execute arbitrary code on systems unauthenticated (without username and password).

   The Apache Software Foundation released an emergency patch as part of the 2.15.0 release of Log4j that fixes the Remote Code Execution (RCE) vulnerability. Application administrators and developers are advised to verify the use of Log4j package in their environment and upgrade to version 2.15.0 immediately.

2. **References**
   - CVE - CVE-2021-44228 (mitre.org)
   - NVD - CVE-2021-44228 (nist.gov)
   - https://logging.apache.org/log4j/2.x/security.html

3. **Disclaimer**
   a. The information contained in this notice has been extracted from various sources and has been published as guidance to members. As the future course of events with regards to this threat are not known, members are advised to keep a close watch on their systems to identify timely detection and remediation.
   b. Members shall act upon this advisory at their own discretion after conducting appropriate impact/risk analysis to their specific environment.
   c. This advisory is for informational purpose only.

All members are requested to take note of the above and take necessary steps.

For and on behalf of
National Stock Exchange of India Limited

Chief Information Security Officer

Telephone No	Fax No	Email id
022-26598100 Extn 20002	022-26598120	cdc@nse.co.in