Cyber Security Notice #15/2021

Log4Shell - Impact on B&R Products

Document Version: 1.1

First published: 2021-12-15
Last updated: 2022-03-08

Notice

The information in this document is subject to change without notice, and should not be construed as a commitment by B&R. All information that relates to the future (e.g. planned software versions and release dates) is provided without guarantee.

B&R provides no warranty, express or implied, including warranties of merchantability and fitness for a particular purpose, for the information contained in this document, and assumes no responsibility for any errors that may appear in this document. In no event shall B&R or any of its suppliers be liable for direct, indirect, special, incidental or consequential damages of any nature or kind arising from the use of this document, or from the use of any hardware or software described in this document, even if B&R or its suppliers have been advised of the possibility of such damages.

This document and parts hereof must not be reproduced or copied without written permission from B&R, and the contents hereof must not be imparted to a third party nor used for any unauthorized purpose.

All rights to registrations and trademarks reside with their respective owners.
Executive Summary

On December 9th, 2021, a vulnerability was disclosed in Apache Log4j2 with CVE-2021-44228 [1]. B&R is aware of this security issue, known as Log4Shell.

During further investigations, an issue was also discovered in the Log4j 1.x. This vulnerability is tracked as CVE-2021-4104 [2].

Another Log4j 1.x security issue was publicly disclosed in January 2022 under CVE-2022-23307. B&R Cyber Security for Products addressed this vulnerability in its Security Advisory "A flaw in Chainsaw component of Log4j can lead to code execution" [3].

B&R has concluded the impact analysis for all potentially affected B&R products.

Affected Products

No products of B&R have been identified as affected by CVE-2021-44228 (Log4Shell).

APROL uses Log4j 1.x versions which are affected by CVE-2021-4104. With the default configuration shipped with APROL this vulnerability cannot be exploited. Using APROL provided tools and mechanisms, a CVE-2021-4104 vulnerable APROL system cannot be configured.

Supporting information and guidelines

The B&R Cyber Security webpage provides further information including Cyber Security guidelines. Please find these resources here: https://www.br-automation.com/en/service/cyber-security/

References

[1] CVE-2021-44228 Details in the National Vulnerability Database
   https://nvd.nist.gov/vuln/detail/CVE-2021-44228

[2] CVE-2021-4104 Details on MITRE
   https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2021-4104

[3] B&R Advisory: A flaw in Chainsaw component of Log4j can lead to code execution
   https://www.br-automation.com/downloads_br_productcatalogue/assets/1644947115875-en-original-1.0.pdf

Document History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2021-12-15</td>
<td>Initial version</td>
</tr>
<tr>
<td>1.1</td>
<td>2022-03-08</td>
<td>Referenced related Log4j Security Advisory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Updated impact analysis status</td>
</tr>
</tbody>
</table>