OPC Foundation Security Bulletin

Security Update for Autogenerated ANSI C Stack Stubs

Published: March 1st, 2022
Version: 1.0

Executive Summary

This security update resolves a vulnerability in the autogenerated ANSI C stack stubs that allows a malicious server to produce a null pointer error in the client. Any application that uses these stubs is affected including any application based on the OPCFoundation/UA-AnsiC-Legacy codebase.

This security update has a base score of 6.0 (medium) using the CVSS v3.1 guidelines.

The CVSS vector string is:

Affected Software

The following software has been updated to address the issue:

<table>
<thead>
<tr>
<th>Download</th>
<th>Release Date</th>
<th>Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPCFoundation/UA-Nodeset</td>
<td></td>
<td>GitHub Commit</td>
</tr>
</tbody>
</table>
| This version or any version after it. | GitHub Commit | GitHub Commit | d69b75a4b90ed21fbf57a330181f29c75fa2b072. | https://github.com/OPCFoundation/UA-NodeSet/commit/d69b75a4b90ed21fbf57a330181f29c75fa2b072 |}

OPC Foundation Vulnerability Information

Vulnerabilities and Exposures list:

<table>
<thead>
<tr>
<th>Vulnerability</th>
<th>CVE number</th>
<th>Publicly disclosed</th>
<th>Exploited</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWE-476 NULL Pointer Dereference</td>
<td>CVE-2021-45117</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Mitigating Factors

Exploiting this vulnerability requires a client to choose to connect to a malicious server or an attacker who can manipulate packets as they travel across the network.

Workarounds

Do not connect to servers that have been discovered via mDNS, an LDS, an untrusted GDS, or a trusted GDS using SecurityMode=None. Do not call FindServers or GetEndpoints with SecurityMode=None.

Disclaimer

The information provided in this disclosure is provided "as is" without warranty of any kind. OPC Foundation disclaims all warranties, either express or implied, including the warranties of merchantability and fitness for a particular purpose. In no event shall OPC Foundation or its suppliers be liable for any damages whatsoever including direct, indirect, incidental, consequential, loss of business profits or special damages, even if OPC Foundation or its suppliers have been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of liability for consequential or incidental damages so the foregoing limitation may not apply.

Revisions

- V1.0 (March 1st, 2022): Bulletin published.