OPC Foundation Security Bulletin

Security Update for the OPC UA .NET Standard Stack

Published: February 15th, 2021
Version: 1.0

Executive Summary

This security update resolves a vulnerability in OPC UA Clients and Servers built with the OPC UA .NET Standard stack that could allow a rogue application to establish a secure connection.

Vendors that incorporate the OPC UA .NET stack into their products must update their products.

This security update has a base score of 4.2 (medium) using the CVSS v3.1 guidelines.

The CVSS vector string is:

Affected Software

The following software downloads are affected:

<table>
<thead>
<tr>
<th>Download</th>
<th>Release Date</th>
<th>Replacement</th>
</tr>
</thead>
</table>
| UA-.NETStandard Stack     | Any version after date of fix. | Commit in GitHub on 2021-01-07  
https://github.com/OPCFoundation/UA-.NETStandard/tree/bfa117b7a73217b26d369c75a2b6cb70884469fC  
NuGet package:  
https://github.com/OPCFoundation/UA-.NETStandard/releases/tag/1.4.365.10 |

OPC Foundation Vulnerability Information

CVE-2020-29457
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>Rogue application can trick a user into allowing communication.</td>
<td>CVE-2020-29457</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Mitigating Factors**

Applications that do not allow certificate validation errors to be suppressed are not affected.

At least one certificate in the chain needs to be trusted for this exploit to work which means a malicious actor needs write access to the trust list on the server machine.

**Workarounds**

Do not suppress any certificate errors.

Do not allow users to temporarily trust untrusted application.

**Acknowledgments**

The OPC Foundation recognizes Thomas Nehring of SAP for discovering this vulnerability.

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**Revisions**

- V1.0 (February 15th, 2021): Bulletin published.