

SSA-507847: Cross-Site Request Forgery Vulnerability in SIMATIC S7-1200 CPU Family Version 4

Publication Date: 2018-10-09
Last Update: 2020-02-10
Current Version: V1.1
CVSS v3.1 Base Score: 7.5

SUMMARY

The latest firmware update for S7-1200 CPU family version 4 fixes a Cross-Site Request Forgery vulnerability. Siemens recommends to update affected devices as soon as possible.

AFFECTED PRODUCTS AND SOLUTION

Affected Product and Versions	Remediation
SIMATIC S7-1200 CPU family version 4 (incl. SIPLUS variants): All versions < V4.2.3	Update to V4.2.3 https://support.industry.siemens.com/cs/us/en/view/109741461

WORKAROUNDS AND MITIGATIONS

Siemens has identified the following specific workarounds and mitigations that customers can apply to reduce the risk:

- Do not visit other websites while being authenticated against the PLC.

GENERAL SECURITY RECOMMENDATIONS

As a general security measure, Siemens strongly recommends to protect network access to devices with appropriate mechanisms. In order to operate the devices in a protected IT environment, Siemens recommends to configure the environment according to Siemens' operational guidelines for Industrial Security (Download: <https://www.siemens.com/cert/operational-guidelines-industrial-security>), and to follow the recommendations in the product manuals.

Additional information on Industrial Security by Siemens can be found at: <https://www.siemens.com/industrialsecurity>

PRODUCT DESCRIPTION

Products of the SIMATIC S7-1200 CPU family have been designed for discrete and continuous control in industrial environments such as manufacturing, food and beverages, and chemical industries worldwide.

SIPLUS extreme products are designed for reliable operation under extreme conditions and are based on SIMATIC, LOGO!, SITOP, SINAMICS, SIMOTION, SCALANCE or other devices. SIPLUS devices use the same firmware as the product they are based on.

VULNERABILITY CLASSIFICATION

The vulnerability classification has been performed by using the CVSS scoring system in version 3.1 (CVSS v3.1) (<https://www.first.org/cvss/>). The CVSS environmental score is specific to the customer's environment and will impact the overall CVSS score. The environmental score should therefore be individually defined by the customer to accomplish final scoring.

An additional classification has been performed using the CWE classification, a community-developed list of common software security weaknesses. This serves as a common language and as a baseline for weakness identification, mitigation, and prevention efforts. A detailed list of CWE classes can be found at: <https://cwe.mitre.org/>.

Vulnerability CVE-2018-13800

The web interface could allow a Cross-Site Request Forgery (CSRF) attack if an unsuspecting user is tricked into accessing a malicious link.

Successful exploitation requires user interaction by a legitimate user, who must be authenticated to the web interface. A successful attack could allow an attacker to trigger actions via the web interface that the legitimate user is allowed to perform. This could allow the attacker to read or modify parts of the device configuration.

At the time of advisory publication no public exploitation of this vulnerability was known.

CVSS v3.1 Base Score	7.5
CVSS Vector	CVSS:3.1/AV:N/AC:H/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C
CWE	CWE-352: Cross-Site Request Forgery (CSRF)

ACKNOWLEDGMENTS

Siemens thanks the following parties for their efforts:

- Lisa Fournet and Marl Joos from P3 communications GmbH for coordinated disclosure
- Artem Zinenko from Kaspersky for pointing out that SIPLUS should also be mentioned

ADDITIONAL INFORMATION

For further inquiries on security vulnerabilities in Siemens products and solutions, please contact the Siemens ProductCERT:

<https://www.siemens.com/cert/advisories>

HISTORY DATA

V1.0 (2018-10-09):	Publication Date
V1.1 (2020-02-10):	SIPLUS devices now explicitly mentioned in the list of affected products

TERMS OF USE

Siemens Security Advisories are subject to the terms and conditions contained in Siemens' underlying license terms or other applicable agreements previously agreed to with Siemens (hereinafter "License Terms"). To the extent applicable to information, software or documentation made available in or through a Siemens Security Advisory, the Terms of Use of Siemens' Global Website (<https://www.siemens.com/>

[terms_of_use](#), hereinafter "Terms of Use"), in particular Sections 8-10 of the Terms of Use, shall apply additionally. In case of conflicts, the License Terms shall prevail over the Terms of Use.