Applied Risk

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Siemens SCALANCE S602, S612, S623, S627-2M Reflected Cross-Site-Scripting Vulnerabilities

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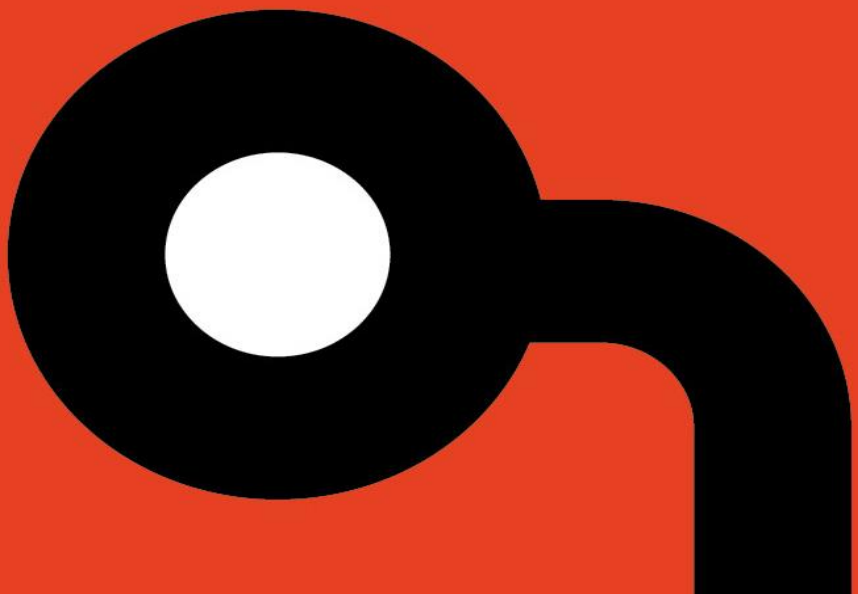

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OVERVIEW

A reflected Cross-Site-Scripting vulnerability has been discovered in the Siemens S602, S612, S623, S627-2M SCALANCE devices. There are no known public exploits targeting this vulnerability in said solution.

AFFECTED PRODUCTS

The Siemens S602, S612, S623, S627-2M SCALANCE devices with a software version prior to version V4.0.1.1 are affected.

IMPACT

The integrated web server allows a Cross-Site Scripting (XSS) attack if an administrator is misled into accessing a malicious link. User interaction is required for a successful exploitation. The administrator must be logged into the web interface in order for the exploitation to succeed. Successful exploitation may lead to the ability to bypass critical security measures provided by the firewall.

BACKGROUND

The SCALANCE S firewall is used to protect trusted industrial networks from untrusted networks. It allows filtering incoming and outgoing network connections in different ways.

VULNERABILITY DETAILS

Reflected Cross-Site Scripting (XSS)

The mentioned Siemens firewalls suffer from a reflected Cross-Site Scripting vulnerability. This allows an attacker to craft a malicious link, that when clicked by a logged-in administrator, can allow the attacker to execute commands on the administrator's behalf.

Applied Risk has calculated a CVSSv3 score of 8.2 for this vulnerability. The CVSS vector string is CVSS:3.0/AV:N/AC:H/PR:N/UI:R/S:C/C:H/I:H/A:L/E:P/RL:O/RC:C

The vendor's security advisory and CVSS vector string regarding this specific vulnerability can be found in the references.

MITIGATION

Siemens addressed the reported vulnerability by releasing a software update (V4.0.1.1), which can be found in the references.

REFERENCES

Vendor website
https://www.siemens.com/

Vendor's security advisory regarding this vulnerability
https://cert-portal.siemens.com/productcert/pdf/ssa-242982.pdf

Software update V4.0.1.1
https://support.industry.siemens.com/cs/ document/109477325/-delivery-release-anddownload-of-firmware-update-v4-0-1-1-forscalance-s?dti=0&lc=en-WW

Product pages

SCALANCE S602
https://support.industry.siemens.com/cs/products/6gk5602-0ba10-2aa3/scalance-s602?pid=393492&mlfb=6GK5602-0BA10-2AA3&mfn=ps&lc=en-US

SCALANCE S612
https://support.industry.siemens.com/cs/products/6gk5612-0ba10-2aa3/scalance-s612?pid=334322&mlfb=6GK5612-0BA10-2AA3&mfn=ps&lc=en-US

SCALANCE S623
https://support.industry.siemens.com/cs/products/6gk5623-0ba10-2aa3/scalance-s623?pid=17207&mlfb=6GK5623-0BA10-2AA3&mfn=ps&lc=en-US

SCALANCE S627-2M
https://mall.industry.siemens.com/mall/en/WW/Catalog/Product/6GK5627-2BA10-2AA3

OWASP
https://www.owasp.org/index.php/Cross-site_Scripting_(XSS)

Common Weakness Enumeration (CWE) definition 79
https://cwe.mitre.org/data/definitions/79.html

CVE-ID: CVE-2018-16555
https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-16555

ICS-CERT ICSA-18-317-04
https://ics-cert.us-cert.gov/advisories/ICSA-18-317-04

CONTACT DETAILS

For any questions related to this report, please contact Applied Risk Research team at:

Email: research@applied-risk.com

PGP Public Key:

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