

SSA-415783: Insecure SSL configuration in SICAM A8000 CP-8000, CP-8021 and CP-8022

Publication Date: 2020-12-08
Last Update: 2020-12-08
Current Version: V1.0
CVSS v3.1 Base Score: 8.1

SUMMARY

Some firmware versions of the affected products use outdated and insecure ciphers or can be downgraded to use outdated and insecure ciphers.

AFFECTED PRODUCTS AND SOLUTION

Affected Product and Versions	Remediation
SICAM A8000 CP-8000: All versions < V16	Update to V16 https://support.industry.siemens.com/cs/ww/en/view/109782344
SICAM A8000 CP-8021: All versions < V16	Update to V16 https://support.industry.siemens.com/cs/ww/en/view/109782344
SICAM A8000 CP-8022: All versions < V16	Update to V16 https://support.industry.siemens.com/cs/ww/en/view/109782344

WORKAROUNDS AND MITIGATIONS

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

- Configure the browser to accept only secure ciphers.

GENERAL SECURITY RECOMMENDATIONS

Operators of critical power systems (e.g. TSOs or DSOs) worldwide are usually required by regulations to build resilience into the power grids by applying multi-level redundant secondary protection schemes. It is therefore recommended that the operators check whether appropriate resilient protection measures are in place. The risk of cyber incidents impacting the grid's reliability can thus be minimized by virtue of the grid design.

Siemens strongly recommends applying the provided security updates using the corresponding tooling and documented procedures made available with the product. If supported by the product, an automated means to apply the security updates across multiple product instances may be used. Siemens strongly recommends prior validation of any security update before being applied, and supervision by trained staff of the update process in the target environment.

As a general security measure Siemens strongly recommends to protect network access with appropriate mechanisms (e.g. firewalls, segmentation, VPN). It is advised to configure the environment according to our operational guidelines in order to run the devices in a protected IT environment.

Recommended security guidelines to Digital Grid Products can be found at:

<https://www.siemens.com/gridsecurity>

PRODUCT DESCRIPTION

The SICAM A8000 RTUs (Remote Terminal Units) series is a modular device range for telecontrol and automation applications in all areas of energy supply.

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-2020-28396

A web server misconfiguration of the affected device can cause insecure ciphers usage by a user's browser. An attacker in a privileged position could decrypt the communication and compromise confidentiality and integrity of the transmitted information.

CVSS v3.1 Base Score	8.1
CVSS Vector	CVSS:3.1/AV:N/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:N/E:P/RL:O/RC:C
CWE	CWE-693: Protection Mechanism Failure

ACKNOWLEDGMENTS

Siemens thanks the following parties for their efforts:

- Sam Hamra from KTH Royal Institute of Technology for coordinated disclosure

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 (2020-12-08): Publication Date

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.