

Schneider Electric Security Notification

Modicon Managed Switch

11 May 2021

Overview

Schneider Electric is aware of a vulnerability in its Modicon Managed Switch products.

The [Modicon Managed Switch](#) products are designed for the special requirements of industrial automation. The devices allow users to set up switched Industrial Ethernet networks.

Failure to apply the firmware upgrade or mitigations provided below may allow an attacker to change the password of any user, which could cause all or part of the switch to be controlled by the attacker. That could result in various attack types like denial of service or provide access to unauthorized devices on the network.

Affected Product and Versions

Modicon Managed Switch MCSESM* and MCSESP* V8.21 and prior

Vulnerability Details

CVE: **CVE-2021-22731**

CVSS v3.1 Base Score 9.8 | Critical | CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H

A *CWE-640: Weak Password Recovery Mechanism for Forgotten Password* vulnerability exists that could cause an unauthorized password change through HTTP / HTTPS when basic user information is known by a remote attacker.

Remediation

Version 8.22 of the Modicon Managed Switch products includes a fix for this vulnerability and is available for download here:

<https://www.se.com/ww/en/product-range-download/584-modicon-switch/?selected-node-id=12144236472#/software-firmware-tab>

The upgrade procedure is detailed in the MCSESM, MCSESM-E Managed Switch User Manual Configuration available below, is also applicable for MCSESP references. It is important to note that the upgrade procedure must be applied **twice** with the same version to prevent rollback.

User Manual Configuration: https://download.schneider-electric.com/files?p_Doc_Ref=QGH59056

Customers should use appropriate patching methodologies when applying these patches to their systems. We strongly recommend the use of back-ups and evaluating the impact of these patches

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in a Test and Development environment or on an offline infrastructure. Contact Schneider Electric's [Customer Care Center](#) if you need assistance removing a patch.

If customers choose not to apply the remediation provided above, they should immediately apply the following mitigations to reduce the risk of exploit:

- Set non-guessable usernames
- Configure IP address access restrictions
- Deactivate device access through HTTP / HTTPS.

General Security Recommendations

We strongly recommend the following industry cybersecurity best practices.

- Locate control and safety system networks and remote devices behind firewalls and isolate them from the business network.
- Install physical controls so no unauthorized personnel can access your industrial control and safety systems, components, peripheral equipment, and networks.
- Place all controllers in locked cabinets and never leave them in the "Program" mode.
- Never connect programming software to any network other than the network for the devices that it is intended for.
- Scan all methods of mobile data exchange with the isolated network such as CDs, USB drives, etc. before use in the terminals or any node connected to these networks.
- Never allow mobile devices that have connected to any other network besides the intended network to connect to the safety or control networks without proper sanitation.
- Minimize network exposure for all control system devices and systems and ensure that they are not accessible from the Internet.
- When remote access is required, use secure methods, such as Virtual Private Networks (VPNs). Recognize that VPNs may have vulnerabilities and should be updated to the most current version available. Also, understand that VPNs are only as secure as the connected devices.

For more information refer to the Schneider Electric [Recommended Cybersecurity Best Practices](#) document.

For More Information

This document provides an overview of the identified vulnerability or vulnerabilities and actions required to mitigate. For more details and assistance on how to protect your installation, contact your local Schneider Electric representative or Schneider Electric Industrial Cybersecurity Services: <https://www.se.com/ww/en/work/solutions/cybersecurity/>. These organizations will be fully aware of this situation and can support you through the process.

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For further information related to cybersecurity in Schneider Electric’s products, visit the company’s cybersecurity support portal page:

<https://www.se.com/ww/en/work/support/cybersecurity/overview.jsp>

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At Schneider, we believe **access to energy and digital** is a basic human right. We empower all to **do more with less**, ensuring **Life Is On** everywhere, for everyone, at every moment.

We provide **energy and automation digital** solutions for **efficiency and sustainability**. We combine world-leading energy technologies, real-time automation, software and services into integrated solutions for Homes, Buildings, Data Centers, Infrastructure and Industries.

We are committed to unleash the infinite possibilities of an **open, global, innovative community** that is passionate with our **Meaningful Purpose, Inclusive and Empowered** values.

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Revision Control:

<p>Version 1.0 11 May 2021</p>	<p>Original Release</p>
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