

Schneider Electric Security Notification

Modicon Controllers

8 October 2019

Overview

Schneider Electric is aware of a vulnerability in four of its Modicon brand of programmable logic controllers.

Affected Product(s)

- Modicon M580 (all firmware versions)
- Modicon M340 (all firmware versions)
- Modicon Premium (all firmware versions)
- Modicon Quantum (all firmware versions)

Vulnerability Details

CVE ID: **CVE-2019-6851**

CVSS v3.0 Base Score 7.5 | (High) | CVSS:3.0/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:N/A:N

A CWE-538: File and Directory Information Exposure vulnerability exists, which could cause the disclosure of information from the controller when using TFTP protocol.

Remediation

TFTP protocol is inherently unsecure and therefore should be used with care to avoid sensitive information disclosure and unauthorized access to the controllers.

The TFTP port is deactivated by default on the controllers.

To mitigate the risks associated with weaknesses in the TFTP protocol, users should immediately.

- Set up network segmentation and implement a firewall to block all unauthorized access to TFTP port 69/UDP on the controller.
- Deactivate the TFTP service when not needed
- If using Modicon M580 controllers, set up a secure communication according to the guideline found in the "Modicon Controllers Platform Cyber Security Reference

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Manual” (see the chapter “Restrict Data Flow from Control Network (Access Control) available here:

<https://www.schneider-electric.com/en/download/document/EIO0000001999/>

Product Information

Ethernet Programmable Automation Controller for industrial process and infrastructure

Product Category - All Categories

Learn more about Schneider Electric’s product categories here: www.schneider-electric.us/en/all-products

How to determine if you are affected

Affected products listed in this security notification connected to an Ethernet network

General Security Recommendations

We strongly recommend following industry cybersecurity best practices such as:

- Locate control and safety system networks and remote devices behind firewalls, and isolate them from the business network.
- Physical controls should be in place so that no unauthorized person would have access to the ICS and safety controllers, peripheral equipment or the ICS and safety networks.
- All controllers should reside in locked cabinets and never be left in the “Program” mode.
- All programming software should be kept in locked cabinets and should never be connected to any network other than the network for the devices that it is intended.
- All methods of mobile data exchange with the isolated network such as CDs, USB drives, etc. should be scanned before use in the terminals or any node connected to these networks.
- Laptops that have connected to any other network besides the intended network should never be allowed to connect to the safety or control networks without proper sanitation.
- Minimize network exposure for all control system devices and/or 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), recognizing that VPNs may have vulnerabilities and should be updated to the most current version available. Also recognize that VPN is only as secure as the connected devices.

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Acknowledgements

Schneider Electric recognizes the following researcher(s) for identifying and helping to coordinate a response to this vulnerability:

CVE	Researcher(s) Name
CVE-2019-6851	Jared Rittle (Cisco Talos)

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, please contact your local Schneider Electric representative and/or Schneider Electric Industrial Cybersecurity Services. These organizations will be fully aware of this situation and can support you through the process.

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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.

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

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Revision Control:

Version 1 8-Oct-19	Original Release
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