EcoStruxure Geo SCADA Expert

11 May 2021

Overview

Schneider Electric is aware of a vulnerability in its EcoStruxure Geo SCADA Expert products (formerly known as ClearSCADA).

The EcoStruxure Geo SCADA Expert product is an open, flexible and scalable software system for telemetry and remote SCADA solutions.

Failure to apply the remediations provided below may risk the revealing of account credentials, which could result in unauthorized system access.

Affected Products and Versions

- ClearSCADA, all versions
- EcoStruxure Geo SCADA Expert 2019, all versions
- EcoStruxure Geo SCADA Expert 2020, V83.7742.1 and prior

Vulnerability Details

CVE ID: CVE-2021-22741


A CWE-916: Use of Password Hash with Insufficient Computational Effort vulnerability exists that could cause the revealing of account credentials when server database files are available. Exposure of these files to an attacker can make the system vulnerable to password decryption attacks. Note that “.sde” configuration export files do not contain user account password hashes.

Remediation

Geo SCADA Expert 2020 April 2021 (83.7787.1) includes a fix for this vulnerability. The security of stored passwords in the servers is significantly strengthened. It is available for download here:

https://tprojects.schneider-electric.com/telemetry/display/CS/Geo+SCADA+Expert+Downloads

Installation of new server software will require system restart or changeover of redundant servers. Consult the Release Notes and Resource Center for advice on the procedure.

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

All customers should take steps to protect their database files, particularly the ‘Config’ files within the Program Data\Schneider Electric\ClearSCADA folder and their backup files. With Geo SCADA Expert 2019 and onwards, access to these files can be set for LocalSystem and Administrators access only. Systems running earlier versions should have file ACL added appropriately.

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.

Acknowledgements

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

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<th>CVE</th>
<th>Researcher</th>
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<tr>
<td>CVE-2021-22741</td>
<td>Nicholas Hobbs (Newcastle, Australia)</td>
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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.

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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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:

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Product Security Office

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