SSA-121293: Code Upload Vulnerability in SIMATIC WinCC and SIMATIC PCS 7

Publication Date: 2019-07-09
Last Update: 2019-10-08
Current Version: V1.3
CVSS v3.0 Base Score: 7.2

SUMMARY

The latest update for SIMATIC WinCC fixes a vulnerability in the SIMATIC WinCC DataMonitor web application of the affected products that allows to upload arbitrary ASPX code.

An attacker has to be authenticated with a valid user account. The vulnerability is only relevant for scenarios where access via the web interface is feasible for an attacker while access to the directory structure is not.

Siemens has released updates for several affected products, and recommends that customers update to the new version. Siemens is preparing further updates and recommends specific countermeasures until patches are available.

AFFECTED PRODUCTS AND SOLUTION

Affected Product and Versions	Remediation
SIMATIC PCS 7 V8.0 and earlier: All versions	See recommendations from section Workarounds and Mitigations
SIMATIC PCS 7 V8.1: All versions < V8.1 with WinCC V7.3 Upd 19	Update WinCC to V7.3 Upd 19 https://support.industry.siemens.com/cs/ww/en/view/109768972
SIMATIC PCS 7 V8.2: All versions < V8.2 SP1 with WinCC V7.4 SP1 Upd 11	Update WinCC to V7.4 SP1 Upd 11 https://support.industry.siemens.com/cs/ww/en/view/109768093
SIMATIC PCS 7 V9.0: All versions < V9.0 SP2 with WinCC V7.4 SP1 Upd11	Update WinCC to V7.4 SP1 Upd 11 https://support.industry.siemens.com/cs/ww/en/view/109768093
SIMATIC WinCC Professional (TIA Portal V13): All versions	See recommendations from section Workarounds and Mitigations
SIMATIC WinCC Professional (TIA Portal V14): All versions < V14 SP1 Upd 9	Update to V14 SP1 Upd 9 https://support.industry.siemens.com/cs/ww/en/view/109747387
SIMATIC WinCC Professional (TIA Portal V15): All versions < V15.1 Upd 3	Update to V15.1 Upd 3 https://support.industry.siemens.com/cs/ww/en/view/109763890
SIMATIC WinCC Runtime Professional V13: All versions	See recommendations from section Workarounds and Mitigations

SIMATIC WinCC Runtime Professional V14: All versions < V14.1 Upd 8	Update to V14.1 Upd 8 https://support.industry.siemens.com/cs/ww/en/view/109747394
SIMATIC WinCC Runtime Professional V15: All versions < V15.1 Upd 3	Update to V15.1 Upd 3 https://support.industry.siemens.com/cs/ww/en/view/109763892
SIMATIC WinCC V7.2 and earlier: All versions	See recommendations from section Workarounds and Mitigations
SIMATIC WinCC V7.3: All versions < V7.3 Upd 19	Update to V7.3 Upd 19 https://support.industry.siemens.com/cs/ww/en/view/109768972
SIMATIC WinCC V7.4: All versions < V7.4 SP1 Upd 11	Update to V7.4 SP1 Upd 11 https://support.industry.siemens.com/cs/ww/en/view/109768093
SIMATIC WinCC V7.5: All versions < V7.5 Upd 3	Update to V7.5 Upd 3 https://support.industry.siemens.com/cs/ww/en/view/109767227

WORKAROUNDS AND MITIGATIONS

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

- Apply Defense-in-Depth

GENERAL SECURITY RECOMMENDATIONS

As a general security measure, Siemens strongly recommends to protect network access to devices with appropriate mechanisms. In order to operate the devices in a protected IT environment, Siemens recommends to configure the environment according to Siemens' operational guidelines for Industrial Security (Download: https://www.siemens.com/cert/operational-guidelines-industrial-security), and to follow the recommendations in the product manuals.

Additional information on Industrial Security by Siemens can be found at: https://www.siemens.com/industrialsecurity

PRODUCT DESCRIPTION

SIMATIC WinCC is a supervisory control and data acquisition (SCADA) system.

SIMATIC WinCC Runtime Professional is a visualization runtime platform used for operator control and monitoring of machines and plants.

SIMATIC PCS 7 is a distributed control system (DCS) integrating SIMATIC WinCC and other components.

VULNERABILITY CLASSIFICATION

The vulnerability classification has been performed by using the CVSS scoring system in version 3.0 (CVSS v3.0) (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.

Vulnerability CVE-2019-10935

The SIMATIC WinCC DataMonitor web application of the affected products allows to upload arbitrary ASPX code.

The security vulnerability could be exploited by an authenticated attacker with network access to the WinCC DataMonitor application. No user interaction is required to exploit this vulnerability. The vulnerability impacts confidentiality, integrity, and availability of the affected device.

At the stage of publishing this security advisory no public exploitation is known.

CVSS v3.0 Base Score	7.2
CVSS Vector	CVSS:3.0/AV:N/AC:L/PR:H/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C

ACKNOWLEDGMENTS

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- CNCERT/CC for coordination efforts
- Xuchen Zhu from ZheJiang Guoli Security 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 (2019-07-09):	Publication Date
V1.1 (2019-08-13):	Added update for SIMATIC WinCC V7.3, SIMATIC PCS 7 V8.1, and SIMATIC WinCC Runtime Professional V14
V1.2 (2019-09-10):	Added update for SIMATIC WinCC Runtime Professional V15
V1.3 (2019-10-08):	Updated remediation for SIMATIC WinCC Runtime Professional V15 and added update for SIMATIC WinCC Professional (TIA Portal V14) and SIMATIC WinCC Professional (TIA Portal V15)

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