

## SSA-712929: Denial of Service Vulnerability in OpenSSL (CVE-2022-0778) Affecting Industrial Products

Publication Date: 2022-06-14  
 Last Update: 2022-08-09  
 Current Version: V1.2  
 CVSS v3.1 Base Score: 7.5

### SUMMARY

A vulnerability in the openssl component (CVE-2022-0778, [0]) could allow an attacker to create a denial of service condition by providing specially crafted elliptic curve certificates to products that use a vulnerable version of openssl.

Siemens has released updates for several affected products and recommends to update to the latest versions. Siemens is preparing further updates and recommends countermeasures for products where updates are not, or not yet available.

[0] <https://www.openssl.org/news/secadv/20220315.txt>

### AFFECTED PRODUCTS AND SOLUTION

Affected Product and Versions	Remediation
Industrial Edge - OPC UA Connector: All versions < V1.7	Use the Edge Management System to update to V1.7 or later version <a href="https://www.siemens.com/industrial-edge-marketplace/">https://www.siemens.com/industrial-edge-marketplace/</a>
Industrial Edge - SIMATIC S7 Connector App: All versions < V1.7	Use the Edge Management System to update to V1.7 or later version <a href="https://www.siemens.com/industrial-edge-marketplace/">https://www.siemens.com/industrial-edge-marketplace/</a>
RUGGEDCOM CROSSBOW Station Access Controller: All versions only running on ROX	Currently no fix is available
RUGGEDCOM RM1224 LTE(4G) EU (6GK6108-4AM00-2BA2): All versions	Currently no fix is available
RUGGEDCOM RM1224 LTE(4G) NAM (6GK6108-4AM00-2DA2): All versions	Currently no fix is available
RUGGEDCOM ROX MX5000: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX MX5000RE: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>

RUGGEDCOM ROX RX1400: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1500: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1501: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1510: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1511: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1512: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1524: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX1536: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
RUGGEDCOM ROX RX5000: All versions < 2.15.1	Update to V2.15.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810800/">https://support.industry.siemens.com/cs/ww/en/view/109810800/</a>
SCALANCE LPE9403 (6GK5998-3GS00-2AC2): All versions < V2.0	Update to V2.0 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811123/">https://support.industry.siemens.com/cs/ww/en/view/109811123/</a>
SCALANCE M804PB (6GK5804-0AP00-2AA2): All versions	Currently no fix is available
SCALANCE M812-1 ADSL-Router (Annex A) (6GK5812-1AA00-2AA2): All versions	Currently no fix is available
SCALANCE M812-1 ADSL-Router (Annex B) (6GK5812-1BA00-2AA2): All versions	Currently no fix is available

SCALANCE M816-1 ADSL-Router (Annex A) (6GK5816-1AA00-2AA2): All versions	Currently no fix is available
SCALANCE M816-1 ADSL-Router (Annex B) (6GK5816-1BA00-2AA2): All versions	Currently no fix is available
SCALANCE M826-2 SHDSL-Router (6GK5826-2AB00-2AB2): All versions	Currently no fix is available
SCALANCE M874-2 (6GK5874-2AA00-2AA2): All versions	Currently no fix is available
SCALANCE M874-3 (6GK5874-3AA00-2AA2): All versions	Currently no fix is available
SCALANCE M876-3 (EVDO) (6GK5876-3AA02-2BA2): All versions	Currently no fix is available
SCALANCE M876-3 (ROK) (6GK5876-3AA02-2EA2): All versions	Currently no fix is available
SCALANCE M876-4 (EU) (6GK5876-4AA00-2BA2): All versions	Currently no fix is available
SCALANCE M876-4 (NAM) (6GK5876-4AA00-2DA2): All versions	Currently no fix is available
SCALANCE MUM853-1 (EU) (6GK5853-2EA00-2DA1): All versions	Currently no fix is available
SCALANCE MUM853-1 (RoW) (6GK5853-2EA00-2AA1): All versions	Currently no fix is available
SCALANCE MUM856-1 (EU) (6GK5856-2EA00-3DA1): All versions	Currently no fix is available
SCALANCE MUM856-1 (NAM) (6GK5856-2EA00-3BA1): All versions	Currently no fix is available
SCALANCE MUM856-1 (RoW) (6GK5856-2EA00-3AA1): All versions	Currently no fix is available

SCALANCE S615 (6GK5615-0AA00-2AA2): All versions	Currently no fix is available
SCALANCE SC622-2C (6GK5622-2GS00-2AC2): All versions < V2.3.1	Update to V2.3.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810992/">https://support.industry.siemens.com/cs/ww/en/view/109810992/</a>
SCALANCE SC632-2C (6GK5632-2GS00-2AC2): All versions < V2.3.1	Update to V2.3.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810992/">https://support.industry.siemens.com/cs/ww/en/view/109810992/</a>
SCALANCE SC636-2C (6GK5636-2GS00-2AC2): All versions < V2.3.1	Update to V2.3.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810992/">https://support.industry.siemens.com/cs/ww/en/view/109810992/</a>
SCALANCE SC642-2C (6GK5642-2GS00-2AC2): All versions < V2.3.1	Update to V2.3.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810992/">https://support.industry.siemens.com/cs/ww/en/view/109810992/</a>
SCALANCE SC646-2C (6GK5646-2GS00-2AC2): All versions < V2.3.1	Update to V2.3.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109810992/">https://support.industry.siemens.com/cs/ww/en/view/109810992/</a>
SCALANCE W1750D (JP) (6GK5750-2HX01-1AD0): All versions	Currently no fix is planned
SCALANCE W1750D (ROW) (6GK5750-2HX01-1AA0): All versions	Currently no fix is planned
SCALANCE W1750D (USA) (6GK5750-2HX01-1AB0): All versions	Currently no fix is planned
SCALANCE X200-4P IRT (6GK5200-4AH00-2BA3): All versions	Currently no fix is available
SCALANCE X200-4P IRT (6GK5200-4AH10-2BA3): All versions	Currently no fix is available
SCALANCE X201-3P IRT (6GK5201-3BH00-2BA3): All versions	Currently no fix is available
SCALANCE X201-3P IRT (6GK5201-3BH10-2BA3): All versions	Currently no fix is available

SCALANCE X201-3P IRT PRO (6GK5201-3BH00-2BD2): All versions	Currently no fix is available
SCALANCE X201-3P IRT PRO (6GK5201-3JR10-2BA6): All versions	Currently no fix is available
SCALANCE X202-2IRT (6GK5202-2BB00-2BA3): All versions	Currently no fix is available
SCALANCE X202-2IRT (6GK5202-2BB10-2BA3): All versions	Currently no fix is available
SCALANCE X202-2P IRT (6GK5202-2BH00-2BA3): All versions	Currently no fix is available
SCALANCE X202-2P IRT (6GK5202-2BH10-2BA3): All versions	Currently no fix is available
SCALANCE X202-2P IRT PRO (6GK5202-2JR00-2BA6): All versions	Currently no fix is available
SCALANCE X202-2P IRT PRO (6GK5202-2JR10-2BA6): All versions	Currently no fix is available
SCALANCE X204-2 (6GK5204-2BB10-2AA3): All versions	Currently no fix is planned
SCALANCE X204-2FM (6GK5204-2BB11-2AA3): All versions	Currently no fix is planned
SCALANCE X204-2LD (6GK5204-2BC10-2AA3): All versions	Currently no fix is planned
SCALANCE X204-2LD TS (6GK5204-2BC10-2CA2): All versions	Currently no fix is planned
SCALANCE X204-2TS (6GK5204-2BB10-2CA2): All versions	Currently no fix is planned
SCALANCE X204IRT (6GK5204-0BA00-2BA3): All versions	Currently no fix is available

SCALANCE X204IRT (6GK5204-0BA10-2BA3): All versions	Currently no fix is available
SCALANCE X204IRT PRO (6GK5204-0JA00-2BA6): All versions	Currently no fix is available
SCALANCE X204IRT PRO (6GK5204-0JA10-2BA6): All versions	Currently no fix is available
SCALANCE X206-1 (6GK5206-1BB10-2AA3): All versions	Currently no fix is planned
SCALANCE X206-1LD (6GK5206-1BC10-2AA3): All versions	Currently no fix is planned
SCALANCE X208 (6GK5208-0BA10-2AA3): All versions	Currently no fix is planned
SCALANCE X208PRO (6GK5208-0HA10-2AA6): All versions	Currently no fix is planned
SCALANCE X212-2 (6GK5212-2BB00-2AA3): All versions	Currently no fix is planned
SCALANCE X212-2LD (6GK5212-2BC00-2AA3): All versions	Currently no fix is planned
SCALANCE X216 (6GK5216-0BA00-2AA3): All versions	Currently no fix is planned
SCALANCE X224 (6GK5224-0BA00-2AA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (2x 24V) (6GK5302-7GD00-2EA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (2x 24V, coated) (6GK5302-7GD00-2GA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (2x 230V) (6GK5302-7GD00-4EA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (2x 230V, coated) (6GK5302-7GD00-4GA3): All versions	Currently no fix is planned

SCALANCE X302-7 EEC (24V) (6GK5302-7GD00-1EA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (24V, coated) (6GK5302-7GD00-1GA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (230V) (6GK5302-7GD00-3EA3): All versions	Currently no fix is planned
SCALANCE X302-7 EEC (230V, coated) (6GK5302-7GD00-3GA3): All versions	Currently no fix is planned
SCALANCE X304-2FE (6GK5304-2BD00-2AA3): All versions	Currently no fix is planned
SCALANCE X306-1LD FE (6GK5306-1BF00-2AA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (2x 24V) (6GK5307-2FD00-2EA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (2x 24V, coated) (6GK5307-2FD00-2GA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (2x 230V) (6GK5307-2FD00-4EA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (2x 230V, coated) (6GK5307-2FD00-4GA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (24V) (6GK5307-2FD00-1EA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (24V, coated) (6GK5307-2FD00-1GA3): All versions	Currently no fix is planned
SCALANCE X307-2 EEC (230V) (6GK5307-2FD00-3EA3): All versions	Currently no fix is planned

SCALANCE X307-2 EEC (230V, coated) (6GK5307-2FD00-3GA3): All versions	Currently no fix is planned
SCALANCE X307-3 (6GK5307-3BL00-2AA3): All versions	Currently no fix is planned
SCALANCE X307-3 (6GK5307-3BL10-2AA3): All versions	Currently no fix is planned
SCALANCE X307-3LD (6GK5307-3BM00-2AA3): All versions	Currently no fix is planned
SCALANCE X307-3LD (6GK5307-3BM10-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2 (6GK5308-2FL00-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2 (6GK5308-2FL10-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2LD (6GK5308-2FM00-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2LD (6GK5308-2FM10-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2LH (6GK5308-2FN00-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2LH (6GK5308-2FN10-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2LH+ (6GK5308-2FP00-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2LH+ (6GK5308-2FP10-2AA3): All versions	Currently no fix is planned
SCALANCE X308-2M (6GK5308-2GG00-2AA2): All versions	Currently no fix is planned
SCALANCE X308-2M (6GK5308-2GG10-2AA2): All versions	Currently no fix is planned



SCALANCE X308-2M PoE (6GK5308-2QG00-2AA2): All versions	Currently no fix is planned
SCALANCE X308-2M PoE (6GK5308-2QG10-2AA2): All versions	Currently no fix is planned
SCALANCE X308-2M TS (6GK5308-2GG00-2CA2): All versions	Currently no fix is planned
SCALANCE X308-2M TS (6GK5308-2GG10-2CA2): All versions	Currently no fix is planned
SCALANCE X310 (6GK5310-0FA00-2AA3): All versions	Currently no fix is planned
SCALANCE X310 (6GK5310-0FA10-2AA3): All versions	Currently no fix is planned
SCALANCE X310FE (6GK5310-0BA00-2AA3): All versions	Currently no fix is planned
SCALANCE X310FE (6GK5310-0BA10-2AA3): All versions	Currently no fix is planned
SCALANCE X320-1 FE (6GK5320-1BD00-2AA3): All versions	Currently no fix is planned
SCALANCE X320-1-2LD FE (6GK5320-3BF00-2AA3): All versions	Currently no fix is planned
SCALANCE X408-2 (6GK5408-2FD00-2AA2): All versions	Currently no fix is planned
SCALANCE XB205-3 (SC) (6GK5205-3BD00-2AB2): All versions	Currently no fix is available
SCALANCE XB205-3 (SC) (6GK5205-3BD00-2TB2): All versions	Currently no fix is available
SCALANCE XB205-3 (ST/BFOC) (6GK5205-3BB00-2AB2): All versions	Currently no fix is available
SCALANCE XB205-3 (ST/BFOC) (6GK5205-3BB00-2TB2): All versions	Currently no fix is available

SCALANCE XB205-3LD (6GK5205-3BF00-2AB2): All versions	Currently no fix is available
SCALANCE XB205-3LD (6GK5205-3BF00-2TB2): All versions	Currently no fix is available
SCALANCE XB208 (6GK5208-0BA00-2AB2): All versions	Currently no fix is available
SCALANCE XB208 (6GK5208-0BA00-2TB2): All versions	Currently no fix is available
SCALANCE XB213-3 (SC) (6GK5213-3BD00-2AB2): All versions	Currently no fix is available
SCALANCE XB213-3 (SC) (6GK5213-3BD00-2TB2): All versions	Currently no fix is available
SCALANCE XB213-3 (ST/BFOC) (6GK5213-3BB00-2AB2): All versions	Currently no fix is available
SCALANCE XB213-3 (ST/BFOC) (6GK5213-3BB00-2TB2): All versions	Currently no fix is available
SCALANCE XB213-3LD (6GK5213-3BF00-2AB2): All versions	Currently no fix is available
SCALANCE XB213-3LD (6GK5213-3BF00-2TB2): All versions	Currently no fix is available
SCALANCE XB216 (6GK5216-0BA00-2AB2): All versions	Currently no fix is available
SCALANCE XB216 (6GK5216-0BA00-2TB2): All versions	Currently no fix is available
SCALANCE XC206-2 (SC) (6GK5206-2BD00-2AC2): All versions	Currently no fix is available
SCALANCE XC206-2 (ST/BFOC) (6GK5206-2BB00-2AC2): All versions	Currently no fix is available
SCALANCE XC206-2SFP (6GK5206-2BS00-2AC2): All versions	Currently no fix is available

SCALANCE XC206-2SFP EEC (6GK5206-2BS00-2FC2): All versions	Currently no fix is available
SCALANCE XC206-2SFP G (6GK5206-2GS00-2AC2): All versions	Currently no fix is available
SCALANCE XC206-2SFP G (6GK5206-2GS00-2TC2): All versions	Currently no fix is available
SCALANCE XC206-2SFP G EEC (6GK5206-2GS00-2FC2): All versions	Currently no fix is available
SCALANCE XC208 (6GK5208-0BA00-2AC2): All versions	Currently no fix is available
SCALANCE XC208EEC (6GK5208-0BA00-2FC2): All versions	Currently no fix is available
SCALANCE XC208G (6GK5208-0GA00-2AC2): All versions	Currently no fix is available
SCALANCE XC208G (6GK5208-0GA00-2TC2): All versions	Currently no fix is available
SCALANCE XC208G EEC (6GK5208-0GA00-2FC2): All versions	Currently no fix is available
SCALANCE XC216 (6GK5216-0BA00-2AC2): All versions	Currently no fix is available
SCALANCE XC216-4C (6GK5216-4BS00-2AC2): All versions	Currently no fix is available
SCALANCE XC216-4C G (6GK5216-4GS00-2AC2): All versions	Currently no fix is available
SCALANCE XC216-4C G (EIP Def.) (6GK5216-4GS00-2TC2): All versions	Currently no fix is available
SCALANCE XC216-4C G EEC (6GK5216-4GS00-2FC2): All versions	Currently no fix is available
SCALANCE XC216EEC (6GK5216-0BA00-2FC2): All versions	Currently no fix is available

SCALANCE XC224 (6GK5224-0BA00-2AC2): All versions	Currently no fix is available
SCALANCE XC224-4C G (6GK5224-4GS00-2AC2): All versions	Currently no fix is available
SCALANCE XC224-4C G (EIP Def.) (6GK5224-4GS00-2TC2): All versions	Currently no fix is available
SCALANCE XC224-4C G EEC (6GK5224-4GS00-2FC2): All versions	Currently no fix is available
SCALANCE XF201-3P IRT (6GK5201-3JR00-2BA6): All versions	Currently no fix is available
SCALANCE XF202-2P IRT (6GK5202-2BH00-2BD2): All versions	Currently no fix is available
SCALANCE XF204 (6GK5204-0BA00-2AF2): All versions	Currently no fix is planned
SCALANCE XF204 (6GK5204-0BA00-2GF2): All versions	Currently no fix is available
SCALANCE XF204 DNA (6GK5204-0BA00-2YF2): All versions	Currently no fix is available
SCALANCE XF204-2 (6GK5204-2BC00-2AF2): All versions	Currently no fix is planned
SCALANCE XF204-2BA (6GK5204-2AA00-2GF2): All versions	Currently no fix is available
SCALANCE XF204-2BA DNA (6GK5204-2AA00-2YF2): All versions	Currently no fix is available
SCALANCE XF204-2BA IRT (6GK5204-2AA00-2BD2): All versions	Currently no fix is available
SCALANCE XF204IRT (6GK5204-0BA00-2BF2): All versions	Currently no fix is available
SCALANCE XF204IRT (6GK5204-0BA10-2BF2): All versions	Currently no fix is available

SCALANCE XF206-1 (6GK5206-1BC00-2AF2): All versions	Currently no fix is planned
SCALANCE XF208 (6GK5208-0BA00-2AF2): All versions	Currently no fix is planned
SCALANCE XM408-4C (6GK5408-4GP00-2AM2): All versions	Currently no fix is available
SCALANCE XM408-4C (L3 int.) (6GK5408-4GQ00-2AM2): All versions	Currently no fix is available
SCALANCE XM408-8C (6GK5408-8GS00-2AM2): All versions	Currently no fix is available
SCALANCE XM408-8C (L3 int.) (6GK5408-8GR00-2AM2): All versions	Currently no fix is available
SCALANCE XM416-4C (6GK5416-4GS00-2AM2): All versions	Currently no fix is available
SCALANCE XM416-4C (L3 int.) (6GK5416-4GR00-2AM2): All versions	Currently no fix is available
SCALANCE XP208 (6GK5208-0HA00-2AS6): All versions	Currently no fix is available
SCALANCE XP208 (6GK5208-0HA00-2TS6): All versions	Currently no fix is available
SCALANCE XP208EEC (6GK5208-0HA00-2ES6): All versions	Currently no fix is available
SCALANCE XP208PoE EEC (6GK5208-0UA00-5ES6): All versions	Currently no fix is available
SCALANCE XP216 (6GK5216-0HA00-2AS6): All versions	Currently no fix is available
SCALANCE XP216 (6GK5216-0HA00-2TS6): All versions	Currently no fix is available
SCALANCE XP216EEC (6GK5216-0HA00-2ES6): All versions	Currently no fix is available

SCALANCE XP216POE EEC (6GK5216-0UA00-5ES6): All versions	Currently no fix is available
SCALANCE XR324-4M EEC (2x 24V, ports on front) (6GK5324-4GG00-2ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 24V, ports on front) (6GK5324-4GG10-2ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 24V, ports on rear) (6GK5324-4GG00-2JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 24V, ports on rear) (6GK5324-4GG10-2JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 100-240VAC/60-250VDC, ports on front) (6GK5324-4GG00-4ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 100-240VAC/60-250VDC, ports on front) (6GK5324-4GG10-4ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 100-240VAC/60-250VDC, ports on rear) (6GK5324-4GG00-4JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (2x 100-240VAC/60-250VDC, ports on rear) (6GK5324-4GG10-4JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (24V, ports on front) (6GK5324-4GG00-1ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (24V, ports on front) (6GK5324-4GG10-1ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (24V, ports on rear) (6GK5324-4GG00-1JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (24V, ports on rear) (6GK5324-4GG10-1JR2): All versions	Currently no fix is planned

SCALANCE XR324-4M EEC (100-240VAC/60-250VDC, ports on front) (6GK5324-4GG00-3ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (100-240VAC/60-250VDC, ports on front) (6GK5324-4GG10-3ER2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (100-240VAC/60-250VDC, ports on rear) (6GK5324-4GG00-3JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M EEC (100-240VAC/60-250VDC, ports on rear) (6GK5324-4GG10-3JR2): All versions	Currently no fix is planned
SCALANCE XR324-4M PoE (24V, ports on front) (6GK5324-4QG00-1AR2): All versions	Currently no fix is planned
SCALANCE XR324-4M PoE (24V, ports on rear) (6GK5324-4QG00-1HR2): All versions	Currently no fix is planned
SCALANCE XR324-4M PoE (230V, ports on front) (6GK5324-4QG00-3AR2): All versions	Currently no fix is planned
SCALANCE XR324-4M PoE (230V, ports on rear) (6GK5324-4QG00-3HR2): All versions	Currently no fix is planned
SCALANCE XR324-4M PoE TS (24V, ports on front) (6GK5324-4QG00-1CR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (24V, ports on front) (6GK5324-0GG00-1AR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (24V, ports on front) (6GK5324-0GG10-1AR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (24V, ports on rear) (6GK5324-0GG00-1HR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (24V, ports on rear) (6GK5324-0GG10-1HR2): All versions	Currently no fix is planned

SCALANCE XR324-12M (230V, ports on front) (6GK5324-0GG00-3AR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (230V, ports on front) (6GK5324-0GG10-3AR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (230V, ports on rear) (6GK5324-0GG00-3HR2): All versions	Currently no fix is planned
SCALANCE XR324-12M (230V, ports on rear) (6GK5324-0GG10-3HR2): All versions	Currently no fix is planned
SCALANCE XR324-12M TS (24V) (6GK5324-0GG00-1CR2): All versions	Currently no fix is planned
SCALANCE XR324-12M TS (24V) (6GK5324-0GG10-1CR2): All versions	Currently no fix is planned
SCALANCE XR324WG (24 x FE, AC 230V) (6GK5324-0BA00-3AR3): All versions	Currently no fix is available
SCALANCE XR324WG (24 X FE, DC 24V) (6GK5324-0BA00-2AR3): All versions	Currently no fix is available
SCALANCE XR328-4C WG (24xFE,4xGE,AC230V) (6GK5328-4FS00-3AR3): All versions	Currently no fix is available
SCALANCE XR328-4C WG (24xFE,4xGE,AC230V) (6GK5328-4FS00-3RR3): All versions	Currently no fix is available
SCALANCE XR328-4C WG (24XFE, 4XGE, 24V) (6GK5328-4FS00-2AR3): All versions	Currently no fix is available
SCALANCE XR328-4C WG (24xFE, 4xGE,DC24V) (6GK5328-4FS00-2RR3): All versions	Currently no fix is available
SCALANCE XR328-4C WG (28xGE, AC 230V) (6GK5328-4SS00-3AR3): All versions	Currently no fix is available



SCALANCE XR328-4C WG (28xGE, DC 24V) (6GK5328-4SS00-2AR3): All versions	Currently no fix is available
SCALANCE XR524-8C, 1x230V (6GK5524-8GS00-3AR2): All versions	Currently no fix is available
SCALANCE XR524-8C, 1x230V (L3 int.) (6GK5524-8GR00-3AR2): All versions	Currently no fix is available
SCALANCE XR524-8C, 2x230V (6GK5524-8GS00-4AR2): All versions	Currently no fix is available
SCALANCE XR524-8C, 2x230V (L3 int.) (6GK5524-8GR00-4AR2): All versions	Currently no fix is available
SCALANCE XR524-8C, 24V (6GK5524-8GS00-2AR2): All versions	Currently no fix is available
SCALANCE XR524-8C, 24V (L3 int.) (6GK5524-8GR00-2AR2): All versions	Currently no fix is available
SCALANCE XR526-8C, 1x230V (6GK5526-8GS00-3AR2): All versions	Currently no fix is available
SCALANCE XR526-8C, 1x230V (L3 int.) (6GK5526-8GR00-3AR2): All versions	Currently no fix is available
SCALANCE XR526-8C, 2x230V (6GK5526-8GS00-4AR2): All versions	Currently no fix is available
SCALANCE XR526-8C, 2x230V (L3 int.) (6GK5526-8GR00-4AR2): All versions	Currently no fix is available
SCALANCE XR526-8C, 24V (6GK5526-8GS00-2AR2): All versions	Currently no fix is available
SCALANCE XR526-8C, 24V (L3 int.) (6GK5526-8GR00-2AR2): All versions	Currently no fix is available

SCALANCE XR528-6M (6GK5528-0AA00-2AR2): All versions	Currently no fix is available
SCALANCE XR528-6M (2HR2) (6GK5528-0AA00-2HR2): All versions	Currently no fix is available
SCALANCE XR528-6M (2HR2, L3 int.) (6GK5528-0AR00-2HR2): All versions	Currently no fix is available
SCALANCE XR528-6M (L3 int.) (6GK5528-0AR00-2AR2): All versions	Currently no fix is available
SCALANCE XR552-12M (6GK5552-0AA00-2AR2): All versions	Currently no fix is available
SCALANCE XR552-12M (2HR2) (6GK5552-0AA00-2HR2): All versions	Currently no fix is available
SCALANCE XR552-12M (2HR2) (6GK5552-0AR00-2HR2): All versions	Currently no fix is available
SCALANCE XR552-12M (2HR2, L3 int.) (6GK5552-0AR00-2AR2): All versions	Currently no fix is available
Security Configuration Tool (SCT): All versions	Currently no fix is planned
SIMATIC Cloud Connect 7 CC712 (6GK1411-1AC00): All versions < V1.9	Update to V1.9 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109812235/">https://support.industry.siemens.com/cs/ww/en/view/109812235/</a>
SIMATIC Cloud Connect 7 CC716 (6GK1411-5AC00): All versions < V1.9	Update to V1.9 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109812235/">https://support.industry.siemens.com/cs/ww/en/view/109812235/</a>
SIMATIC CP 343-1 Advanced (6GK7343-1GX31-0XE0): All versions	Currently no fix is planned
SIMATIC CP 443-1 Advanced (6GK7443-1GX30-0XE0): All versions	Currently no fix is planned
SIMATIC CP 443-1 OPC UA (6GK7443-1UX00-0XE0): All versions	Currently no fix is planned

SIMATIC CP 1242-7 V2 (6GK7242-7KX31-0XE0): All versions	Currently no fix is available
SIMATIC CP 1243-1 (6GK7243-1BX30-0XE0): All versions	Currently no fix is available
SIMATIC CP 1243-7 LTE EU (6GK7243-7KX30-0XE0): All versions	Currently no fix is available
SIMATIC CP 1243-7 LTE US (6GK7243-7SX30-0XE0): All versions	Currently no fix is available
SIMATIC CP 1243-8 IRC (6GK7243-8RX30-0XE0): All versions	Currently no fix is available
SIMATIC CP 1542SP-1 (6GK7542-6UX00-0XE0): All versions	Currently no fix is available
SIMATIC CP 1543-1 (6GK7543-1AX00-0XE0): All versions	Currently no fix is available
SIMATIC CP 1543SP-1 (6GK7543-6WX00-0XE0): All versions	Currently no fix is available
SIMATIC CP 1545-1 (6GK7545-1GX00-0XE0): All versions	Currently no fix is available
SIMATIC CP 1626 (6GK1162-6AA01): All versions	Currently no fix is planned
SIMATIC CP 1628 (6GK1162-8AA00): All versions	Currently no fix is planned
SIMATIC ET 200SP Open Controller (incl. SIPLUS variants): All versions	Currently no fix is available
SIMATIC Logon: All versions < V1.6 Upd6	Update to V1.6 Upd6 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109805072/">https://support.industry.siemens.com/cs/ww/en/view/109805072/</a>
SIMATIC MV540 H (6GF3540-0GE10): All versions < V3.3	Update to V3.3 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811878/">https://support.industry.siemens.com/cs/ww/en/view/109811878/</a>
SIMATIC MV540 S (6GF3540-0CD10): All versions < V3.3	Update to V3.3 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811878/">https://support.industry.siemens.com/cs/ww/en/view/109811878/</a>

SIMATIC MV550 H (6GF3550-0GE10): All versions < V3.3	Update to V3.3 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811878/">https://support.industry.siemens.com/cs/ww/en/view/109811878/</a>
SIMATIC MV550 S (6GF3550-0CD10): All versions < V3.3	Update to V3.3 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811878/">https://support.industry.siemens.com/cs/ww/en/view/109811878/</a>
SIMATIC MV560 U (6GF3560-0LE10): All versions < V3.3	Update to V3.3 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811878/">https://support.industry.siemens.com/cs/ww/en/view/109811878/</a>
SIMATIC MV560 X (6GF3560-0HE10): All versions < V3.3	Update to V3.3 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811878/">https://support.industry.siemens.com/cs/ww/en/view/109811878/</a>
SIMATIC NET PC Software V14: All versions	Currently no fix is planned
SIMATIC NET PC Software V15: All versions	Currently no fix is planned
SIMATIC NET PC Software V16: All versions < V16 Update 6	Update to V16 Update 6 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811815/">https://support.industry.siemens.com/cs/ww/en/view/109811815/</a>
SIMATIC NET PC Software V17: All versions	Currently no fix is planned
SIMATIC PCS 7 TeleControl: All versions	Currently no fix is available
SIMATIC PCS neo: All versions	Currently no fix is available
SIMATIC PDM: All versions < V9.2.2	Update to V9.2.2 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811911/">https://support.industry.siemens.com/cs/ww/en/view/109811911/</a>
SIMATIC RF166C (6GT2002-0EE20): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811120/">https://support.industry.siemens.com/cs/de/en/view/109811120/</a>
SIMATIC RF185C (6GT2002-0JE10): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811120/">https://support.industry.siemens.com/cs/de/en/view/109811120/</a>
SIMATIC RF186C (6GT2002-0JE20): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811120/">https://support.industry.siemens.com/cs/de/en/view/109811120/</a>

SIMATIC RF186CI (6GT2002-0JE50): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811120/">https://support.industry.siemens.com/cs/de/en/view/109811120/</a>
SIMATIC RF188C (6GT2002-0JE40): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811120/">https://support.industry.siemens.com/cs/de/en/view/109811120/</a>
SIMATIC RF188CI (6GT2002-0JE60): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811120/">https://support.industry.siemens.com/cs/de/en/view/109811120/</a>
SIMATIC RF360R (6GT2801-5BA30): All versions < V2.0.1	Update to V2.0.1 or later version <a href="https://support.industry.siemens.com/cs/de/en/view/109811118/">https://support.industry.siemens.com/cs/de/en/view/109811118/</a>
SIMATIC RF610R (6GT2811-6BC10): All versions < V4.0.1	Update to V4.0.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811014/">https://support.industry.siemens.com/cs/ww/en/view/109811014/</a>
SIMATIC RF615R (6GT2811-6CC10): All versions < V4.0.1	Update to V4.0.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811014/">https://support.industry.siemens.com/cs/ww/en/view/109811014/</a>
SIMATIC RF650R (6GT2811-6AB20): All versions < V4.0.1	Update to V4.0.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811014/">https://support.industry.siemens.com/cs/ww/en/view/109811014/</a>
SIMATIC RF680R (6GT2811-6AA10): All versions < V4.0.1	Update to V4.0.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811014/">https://support.industry.siemens.com/cs/ww/en/view/109811014/</a>
SIMATIC RF685R (6GT2811-6CA10): All versions < V4.0.1	Update to V4.0.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811014/">https://support.industry.siemens.com/cs/ww/en/view/109811014/</a>
SIMATIC S7-1200 CPU family (incl. SIPLUS variants): All versions	Currently no fix is available
SIMATIC S7-1500 CPU family (incl. related ET200 CPUs and SIPLUS variants): All versions	Currently no fix is available
SIMATIC S7-1500 Software Controller (incl. F): All versions	Currently no fix is available
SIMATIC S7-PLCSIM Advanced: All versions	Currently no fix is available

SIMATIC STEP 7 (TIA Portal): All versions	Currently no fix is available
SIMATIC STEP 7 V5.X: All versions < V5.7 HF4	Update to V5.7 HF4 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811212/">https://support.industry.siemens.com/cs/ww/en/view/109811212/</a>
SIMATIC WinCC (TIA Portal): All versions	Currently no fix is available
SINAUT Software ST7sc: All versions	Currently no fix is available
SINAUT ST7CC: All versions	Currently no fix is available
SINEC INS: All versions	Currently no fix is available
SINEC NMS: All versions	Currently no fix is available
SINEMA Remote Connect Server: All versions < V3.1	Update to V3.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109811169/">https://support.industry.siemens.com/cs/ww/en/view/109811169/</a>
SIPLUS ET 200SP CP 1543SP-1 ISEC (6AG1543-6WX00-7XE0): All versions	Currently no fix is available
SIPLUS ET 200SP CP 1543SP-1 ISEC TX RAIL (6AG2543-6WX00-4XE0): All versions	Currently no fix is available
SIPLUS NET CP 343-1 Advanced (6AG1343-1GX31-4XE0): All versions	Currently no fix is planned
SIPLUS NET CP 443-1 Advanced (6AG1443-1GX30-4XE0): All versions	Currently no fix is planned
SIPLUS NET CP 1242-7 V2 (6AG1242-7KX31-7XE0): All versions	Currently no fix is available
SIPLUS NET CP 1543-1 (6AG1543-1AX00-2XE0): All versions	Currently no fix is available
SIPLUS NET SCALANCE X202-2P IRT (6AG1202-2BH00-2BA3): All versions	Currently no fix is available

SIPLUS NET SCALANCE X308-2 (6AG1308-2FL10-4AA3): All versions	Currently no fix is planned
SIPLUS NET SCALANCE XC206-2 (6AG1206-2BB00-7AC2): All versions	Currently no fix is available
SIPLUS NET SCALANCE XC206-2SFP (6AG1206-2BS00-7AC2): All versions	Currently no fix is available
SIPLUS NET SCALANCE XC208 (6AG1208-0BA00-7AC2): All versions	Currently no fix is available
SIPLUS NET SCALANCE XC216-4C (6AG1216-4BS00-7AC2): All versions	Currently no fix is available
SIPLUS S7-1200 CP 1243-1 (6AG1243-1BX30-2AX0): All versions	Currently no fix is available
SIPLUS S7-1200 CP 1243-1 RAIL (6AG2243-1BX30-1XE0): All versions	Currently no fix is available
SIPLUS TIM 1531 IRC (6AG1543-1MX00-7XE0): All versions	Currently no fix is available
TeleControl Server Basic V3: All versions < V3.1.1	Update to V3.1.1 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109812231/">https://support.industry.siemens.com/cs/ww/en/view/109812231/</a>
TIA Administrator: All versions	Currently no fix is available
TIA Portal Cloud: All versions	Currently no fix is available
TIA Portal V15: All versions	Currently no fix is planned
TIA Portal V16: All versions	Currently no fix is available
TIA Portal V17: All versions	Currently no fix is available
TIM 1531 IRC (6GK7543-1MX00-0XE0): All versions	Currently no fix is available

## **WORKAROUNDS AND MITIGATIONS**

Product specific remediations or mitigations can be found in the section [Affected Products and Solution](#). Please follow the [General Security Recommendations](#).

## **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**

Industrial Edge represents an open, ready-to-use Edge computing platform consisting of Edge devices, Edge apps, Edge connectivity, and an application and device management infrastructure.

SCALANCE LPE9000 (Local Processing Engine) extends the SCALANCE family portfolio by a component that provides computing power for a wide range of applications in the network, close to the process – Edge Computing.

SCALANCE M-800, MUM-800 and S615 as well as the RUGGEDCOM RM1224 industrial routers are used for secure remote access to plants via mobile networks, e.g. GPRS or UMTS with the integrated security functions of a firewall for protection against unauthorized access and VPN to protect data transmission.

SCALANCE W1750D is an Access Point that supports IEEE 802.11 ac standards for high-performance WLAN, and is equipped with two dual-band radios, which can provide access and monitor the network simultaneously.

SCALANCE X switches are used to connect industrial components like Programmable Logic Controllers (PLCs) or Human Machine Interfaces (HMIs).

Security Configuration Tool (SCT) is an engineering software for security devices such as SCALANCE-S or CP 443-1 Advanced.

SIMATIC Logon is used for central user administration and access control in other SIMATIC applications.

SIMATIC PDM (Process Device Manager) is an universal, manufacturer-independent tool for configuration, parameter assignment, commissioning, diagnostics and maintenance of intelligent process devices (actors, sensors) and automation components (remote I/Os, multiplexer, process control units, compact controller).

SINEC NMS is a new generation of the Network Management System (NMS) for the Digital Enterprise. This system can be used to centrally monitor, manage, and configure networks.

SINEMA Remote Connect is a management platform for remote networks that enables the simple management of tunnel connections (VPN) between headquarters, service technicians, and installed machines or plants. It provides both the Remote Connect Server, which is the server application, and the Remote Connect Client, which is an OpenVPN client for optimal connection to SINEMA Remote Connect Server.

TeleControl Server Basic allows remote monitoring and control of plants.



## **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-2022-0778**

The `BN_mod_sqrt()` function in `openssl`, which computes a modular square root, contains a bug that can cause it to loop forever for non-prime moduli. Internally this function is used when parsing certificates that contain elliptic curve public keys in compressed form or explicit elliptic curve parameters with a base point encoded in compressed form. It is possible to trigger the infinite loop by crafting a certificate that has invalid explicit curve parameters. Since certificate parsing happens prior to verification of the certificate signature, any process that parses an externally supplied certificate may thus be subject to a denial of service attack. The infinite loop can also be reached when parsing crafted private keys as they can contain explicit elliptic curve parameters. (<https://www.openssl.org/news/secadv/20220315.txt>)

CVSS v3.1 Base Score	7.5
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-835: Loop with Unreachable Exit Condition ('Infinite Loop')

## **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 (2022-06-14):	Publication Date
V1.1 (2022-07-12):	Added SCALANCE X-200, X-200 IRT, X-300, XM-400, XR-500, XR-300WG, XB-200, XC-200, XF-200, XP-200 product families and Security Configuration Tool (SCT) as affected; added fix for RUGGEDCOM ROX devices and SIMATIC MV500 devices; no fix planned for SIMATIC NET PC Software, SIMATIC CP 343-1 Advanced and SIMATIC CP 443-1 Advanced (incl. SIPLUS NET variants)
V1.2 (2022-08-09):	Added fix for Industrial Edge - OPC UA Connector, SIMATIC Cloud Connect 7 gateways, SIMATIC Logon, SIMATIC PDM, SIMATIC STEP 7 V5.X and TeleControl Server Basic; added SCALANCE W1750D as affected; clarified that Industrial Edge - PROFINET IO Connector is not affected

## **TERMS OF USE**

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