# SSA-592380: Denial of Service Vulnerability in SIMATIC S7-1500 CPUs and related products

Publication Date:     2023-12-12
Last Update:          2024-03-12
Current Version:      V1.1
CVSS v3.1 Base Score: 7.5

## SUMMARY

A vulnerability has been identified in the SIMATIC S7-1500 CPU family and related products that could allow an attacker to cause a denial of service condition. In order to exploit the vulnerability, an attacker must have access to the affected devices on port 102/tcp.

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

## AFFECTED PRODUCTS AND SOLUTION

| Affected Product and Versions | Remediation |
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| SIMATIC Drive Controller CPU 1504D TF (6ES7615-4DF10-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109773914/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC Drive Controller CPU 1507D TF (6ES7615-7DF10-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109773914/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC ET 200SP Open Controller CPU 1515SP PC2 (incl. SIPLUS variants): <br> All versions <br> affected by all CVEs | Currently no fix is available <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1510SP F-1 PN (6ES7510-1SJ00-0AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1510SP F-1 PN (6ES7510-1SJ01-0AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1510SP F-1 PN (6ES7510-1SK03-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1510SP-1 PN (6ES7510-1DJ00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1510SP-1 PN (6ES7510-1DJ01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1510SP-1 PN (6ES7510-1DK03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511-1 PN (6ES7511-1AK00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511-1 PN (6ES7511-1AK01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511-1 PN (6ES7511-1AK02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511-1 PN (6ES7511-1AL03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511C-1 PN (6ES7511-1CK00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511C-1 PN (6ES7511-1CK01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511C-1 PN (6ES7511-1CL03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511F-1 PN (6ES7511-1FK00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1511F-1 PN (6ES7511-1FK01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511F-1 PN (6ES7511-1FK02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511F-1 PN (6ES7511-1FL03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511T-1 PN (6ES7511-1TK01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511T-1 PN (6ES7511-1TL03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511TF-1 PN (6ES7511-1UK01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1511TF-1 PN (6ES7511-1UL03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512C-1 PN (6ES7512-1CK00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512C-1 PN (6ES7512-1CK01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512C-1 PN (6ES7512-1CM03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1512SP F-1 PN (6ES7512-1SK00-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512SP F-1 PN (6ES7512-1SK01-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512SP F-1 PN (6ES7512-1SM03-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512SP-1 PN (6ES7512-1DK00-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512SP-1 PN (6ES7512-1DK01-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1512SP-1 PN (6ES7512-1DM03-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513-1 PN (6ES7513-1AL00-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513-1 PN (6ES7513-1AL01-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513-1 PN (6ES7513-1AL02-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513-1 PN (6ES7513-1AM03-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513F-1 PN (6ES7513-1FL00-0AB0): All versions affected by all CVEs | Currently no fix is planned See recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1513F-1 PN (6ES7513-1FL01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513F-1 PN (6ES7513-1FL02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513F-1 PN (6ES7513-1FM03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513R-1 PN (6ES7513-1RL00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1513R-1 PN (6ES7513-1RM03-0AB0):<br>All versions < V3.1.2<br>affected by all CVEs | Update to V3.1.2 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1514SP F-2 PN (6ES7514-2SN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1514SP-2 PN (6ES7514-2DN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1514SPT F-2 PN (6ES7514-2WN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1514SPT-2 PN (6ES7514-2VN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515-2 PN (6ES7515-2AM00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1515-2 PN (6ES7515-2AM01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515-2 PN (6ES7515-2AM02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515-2 PN (6ES7515-2AN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515F-2 PN (6ES7515-2FM00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515F-2 PN (6ES7515-2FM01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515F-2 PN (6ES7515-2FM02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515F-2 PN (6ES7515-2FN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515R-2 PN (6ES7515-2RM00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515R-2 PN (6ES7515-2RN03-0AB0):<br>All versions < V3.1.2<br>affected by all CVEs | Update to V3.1.2 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515T-2 PN (6ES7515-2TM01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1515T-2 PN (6ES7515-2TN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515TF-2 PN (6ES7515-2UM01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1515TF-2 PN (6ES7515-2UN03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516-3 PN/DP (6ES7516-3AN00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516-3 PN/DP (6ES7516-3AN01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516-3 PN/DP (6ES7516-3AN02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516-3 PN/DP (6ES7516-3AP03-0AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516F-3 PN/DP (6ES7516-3FN00-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516F-3 PN/DP (6ES7516-3FN01-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516F-3 PN/DP (6ES7516-3FN02-0AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

| SIMATIC S7-1500 CPU 1516F-3 PN/DP (6ES7516-3FP03-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
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| SIMATIC S7-1500 CPU 1516T-3 PN/DP (6ES7516-3TN00-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1516TF-3 PN/DP (6ES7516-3UN00-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1517-3 PN/DP (6ES7517-3AP00-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1517F-3 PN/DP (6ES7517-3FP00-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1517F-3 PN/DP (6ES7517-3FP01-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1517H-3 PN (6ES7517-3HP00-0AB0): All versions < V3.1.2 affected by all CVEs | Update to V3.1.2 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1517T-3 PN/DP (6ES7517-3TP00-0AB0): All versions < V3.1.0 affected by all CVEs | Update to V3.1.0 or later version https://support.industry.siemens.com/cs/ww/en/view/109478459/ See further recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU 1517TF-3 PN/DP (6ES7517-3UP00-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518-4 PN/DP (6ES7518-4AP00-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518-4 PN/DP MFP (6ES7518-4AX00-1AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518F-4 PN/DP (6ES7518-4FP00-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518F-4 PN/DP MFP (6ES7518-4FX00-1AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518HF-4 PN (6ES7518-4JP00-0AB0): <br> All versions < V3.1.2 <br> affected by all CVEs | Update to V3.1.2 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518T-4 PN/DP (6ES7518-4TP00-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU 1518TF-4 PN/DP (6ES7518-4UP00-0AB0): <br> All versions < V3.1.0 <br> affected by all CVEs | Update to V3.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478459/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 CPU S7-1518-4 PN/DP ODK (6ES7518-4AP00-3AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |

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| SIMATIC S7-1500 CPU S7-1518F-4 PN/DP ODK (6ES7518-4FP00-3AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 ET 200pro: CPU 1513PRO F-2 PN (6ES7513-2GL00-0AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 ET 200pro: CPU 1513PRO-2 PN (6ES7513-2PL00-0AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 ET 200pro: CPU 1516PRO F-2 PN (6ES7516-2GN00-0AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 ET 200pro: CPU 1516PRO-2 PN (6ES7516-2PN00-0AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIMATIC S7-1500 Software Controller: <br> All versions < V30.1.0 <br> affected by all CVEs | Update to V30.1.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109478528/ <br> See further recommendations from section Workarounds and Mitigations |
| SIMATIC S7-PLCSIM Advanced: <br> All versions < V6.0 <br> affected by all CVEs | Update to V6.0 or later version <br> https://support.industry.siemens.com/cs/ww/en/view/109821388 <br> See further recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1510SP F-1 PN (6AG1510-1SJ01-2AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1510SP F-1 PN RAIL (6AG2510-1SJ01-1AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1510SP-1 PN (6AG1510-1DJ01-2AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1510SP-1 PN (6AG1510-1DJ01-7AB0): <br> All versions <br> affected by all CVEs | Currently no fix is planned <br> See recommendations from section Workarounds and Mitigations |

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| SIPLUS ET 200SP CPU 1510SP-1 PN RAIL (6AG2510-1DJ01-1AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1510SP-1 PN RAIL (6AG2510-1DJ01-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP F-1 PN (6AG1512-1SK00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP F-1 PN (6AG1512-1SK01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP F-1 PN (6AG1512-1SK01-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP F-1 PN RAIL (6AG2512-1SK01-1AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP F-1 PN RAIL (6AG2512-1SK01-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP-1 PN (6AG1512-1DK01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP-1 PN (6AG1512-1DK01-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP-1 PN RAIL (6AG2512-1DK01-1AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS ET 200SP CPU 1512SP-1 PN RAIL (6AG2512-1DK01-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN (6AG1511-1AK00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIPLUS S7-1500 CPU 1511-1 PN (6AG1511-1AK01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN (6AG1511-1AK01-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN (6AG1511-1AK02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN (6AG1511-1AK02-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN T1 RAIL (6AG2511-1AK01-1AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN T1 RAIL (6AG2511-1AK02-1AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN TX RAIL (6AG2511-1AK01-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511-1 PN TX RAIL (6AG2511-1AK02-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511F-1 PN (6AG1511-1FK00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511F-1 PN (6AG1511-1FK01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1511F-1 PN (6AG1511-1FK02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513-1 PN (6AG1513-1AL00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIPLUS S7-1500 CPU 1513-1 PN (6AG1513-1AL01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513-1 PN (6AG1513-1AL01-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513-1 PN (6AG1513-1AL02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513-1 PN (6AG1513-1AL02-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513F-1 PN (6AG1513-1FL00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513F-1 PN (6AG1513-1FL01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1513F-1 PN (6AG1513-1FL02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1515F-2 PN (6AG1515-2FM01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1515F-2 PN (6AG1515-2FM02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1515F-2 PN RAIL (6AG2515-2FM02-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1515F-2 PN T2 RAIL (6AG2515-2FM01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1515R-2 PN (6AG1515-2RM00-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIPLUS S7-1500 CPU 1515R-2 PN TX RAIL (6AG2515-2RM00-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP (6AG1516-3AN00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP (6AG1516-3AN00-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP (6AG1516-3AN01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP (6AG1516-3AN01-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP (6AG1516-3AN02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP (6AG1516-3AN02-7AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP RAIL (6AG2516-3AN02-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516-3 PN/DP TX RAIL (6AG2516-3AN01-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516F-3 PN/DP (6AG1516-3FN00-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516F-3 PN/DP (6AG1516-3FN01-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516F-3 PN/DP (6AG1516-3FN02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |

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| SIPLUS S7-1500 CPU 1516F-3 PN/DP RAIL (6AG2516-3FN02-2AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1516F-3 PN/DP RAIL (6AG2516-3FN02-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is planned<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1517H-3 PN (6AG1517-3HP00-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is available<br>See recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1518-4 PN/DP (6AG1518-4AP00-4AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1518-4 PN/DP MFP (6AG1518-4AX00-4AC0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1518F-4 PN/DP (6AG1518-4FP00-4AB0):<br>All versions < V3.1.0<br>affected by all CVEs | Update to V3.1.0 or later version<br>https://support.industry.siemens.com/cs/ww/en/view/109478459/<br>See further recommendations from section Workarounds and Mitigations |
| SIPLUS S7-1500 CPU 1518HF-4 PN (6AG1518-4JP00-4AB0):<br>All versions<br>affected by all CVEs | Currently no fix is available<br>See recommendations from section Workarounds and Mitigations |

## WORKAROUNDS AND MITIGATIONS

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

  • Limit access to port 102/tcp to trusted users and systems only

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

SIMATIC S7-1500 CPU products have been designed for discrete and continuous control in industrial environments such as manufacturing, food and beverages, and chemical industries worldwide.

SIPLUS extreme products are designed for reliable operation under extreme conditions and are based on SIMATIC, LOGO!, SITOP, SINAMICS, SIMOTION, SCALANCE or other devices. SIPLUS devices use the same firmware as the product they are based on.

## VULNERABILITY DESCRIPTION

This chapter describes all vulnerabilities (CVE-IDs) addressed in this security advisory. Wherever applicable, it also documents the product-specific impact of the individual vulnerabilities.

### Vulnerability CVE-2023-46156

Affected devices improperly handle specially crafted packets sent to port 102/tcp. This could allow an attacker to create a denial of service condition. A restart is needed to restore normal operations.

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| CVSS v3.1 Base Score | 7.5 |
| CVSS Vector | 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 |
| CWE | CWE-416: Use After Free |

## ACKNOWLEDGMENTS

Siemens thanks the following parties for their efforts:

- Maurice Joren for reporting and coordinated disclosure
- Yu Cong for reporting and 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 (2023-12-12):    Publication Date
V1.1 (2024-03-12):    Added fix version information for following SIMATIC S7-1500 CPUs: 1513R-1 PN (6ES7513-1RM03-0AB0), 1515R-2 PN (6ES7515-2RN03-0AB0), 1517H-3 PN (6ES7517-3HP00-0AB0), 1518HF-4 PN (6ES7518-4JP00-0AB0) and SIMATIC S7-1500 Software Controller

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