

## **SSA-556635: Multiple Vulnerabilities in Telecontrol Server Basic before V3.1.2.0**

Publication Date: 2024-04-09  
Last Update: 2024-04-09  
Current Version: V1.0  
CVSS v3.1 Base Score: 8.8

### **SUMMARY**

Siemens has released a new version for Telecontrol Server Basic that fixes multiple vulnerabilities.

### **AFFECTED PRODUCTS AND SOLUTION**

<b>Affected Product and Versions</b>	<b>Remediation</b>
TeleControl Server Basic V3: All versions < V3.1.2 affected by <a href="#">all CVEs</a>	Update to V3.1.2 or later version <a href="https://support.industry.siemens.com/cs/ww/en/view/109955177/">https://support.industry.siemens.com/cs/ww/en/view/109955177/</a>

### **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**

TeleControl Server Basic allows remote monitoring and control of plants.

### **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-2022-4304**

A timing based side channel exists in the OpenSSL RSA Decryption implementation which could be sufficient to recover a plaintext across a network in a Bleichenbacher style attack. To achieve a successful decryption an attacker would have to be able to send a very large number of trial messages for decryption. The vulnerability affects all RSA padding modes: PKCS#1 v1.5, RSA-OEAP and RSASVE. For example, in a TLS connection, RSA is commonly used by a client to send an encrypted pre-master secret to the server. An attacker that had observed a genuine connection between a client and a server could use this flaw to send trial messages to the server and record the time taken to process them. After a sufficiently large number of messages the attacker could recover the pre-master secret used for the original connection and thus be able to decrypt the application data sent over that connection.

CVSS v3.1 Base Score      5.9  
CVSS Vector                [CVSS:3.1/AV:N/AC:H/PR:N/UI:N/S:U/C:N/I:H/A:N/E:U/RL:O/RC:C](#)  
CWE                         CWE-326: Inadequate Encryption Strength

**Vulnerability CVE-2022-4450**

The function PEM\_read\_bio\_ex() reads a PEM file from a BIO and parses and decodes the “name” (e.g. “CERTIFICATE”), any header data and the payload data. If the function succeeds then the “name\_out”, “header” and “data” arguments are populated with pointers to buffers containing the relevant decoded data. The caller is responsible for freeing those buffers. It is possible to construct a PEM file that results in 0 bytes of payload data. In this case PEM\_read\_bio\_ex() will return a failure code but will populate the header argument with a pointer to a buffer that has already been freed. If the caller also frees this buffer then a double free will occur. This will most likely lead to a crash. This could be exploited by an attacker who has the ability to supply malicious PEM files for parsing to achieve a denial of service attack. The functions PEM\_read\_bio() and PEM\_read() are simple wrappers around PEM\_read\_bio\_ex() and therefore these functions are also directly affected. These functions are also called indirectly by a number of other OpenSSL functions including PEM\_X509\_INFO\_read\_bio\_ex() and SSL\_CTX\_use\_serverinfo\_file() which are also vulnerable. Some OpenSSL internal uses of these functions are not vulnerable because the caller does not free the header argument if PEM\_read\_bio\_ex() returns a failure code. These locations include the PEM\_read\_bio\_TYPE() functions as well as the decoders introduced in OpenSSL 3.0. The OpenSSL asn1parse command line application is also impacted by this issue.

CVSS v3.1 Base Score      5.9  
CVSS Vector                [CVSS:3.1/AV:N/AC:H/PR:N/UI:N/S:U/C:N/I:N/A:H/E:U/RL:O/RC:C](#)  
CWE                         CWE-415: Double Free

**Vulnerability CVE-2022-40303**

An issue was discovered in libxml2 before 2.10.3. When parsing a multi-gigabyte XML document with the XML\_PARSE\_HUGE parser option enabled, several integer counters can overflow. This results in an attempt to access an array at a negative 2GB offset, typically leading to a segmentation fault.

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-190: Integer Overflow or Wraparound

**Vulnerability CVE-2022-40304**

An issue was discovered in libxml2 before 2.10.3. Certain invalid XML entity definitions can corrupt a hash table key, potentially leading to subsequent logic errors. In one case, a double-free can be provoked.

CVSS v3.1 Base Score      7.8  
CVSS Vector                [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE                         CWE-415: Double Free

### **Vulnerability CVE-2022-43513**

The affected components allow to rename license files with user chosen input without authentication. This could allow an unauthenticated remote attacker to rename and move files as SYSTEM user.

CVSS v3.1 Base Score      8.2  
CVSS Vector                [CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:H/A:L/E:P/RL:O/RC:C](#)  
CWE                         CWE-73: External Control of File Name or Path

### **Vulnerability CVE-2022-43514**

The affected component does not correctly validate the root path on folder related operations, allowing to modify files and folders outside the intended root directory. This could allow an unauthenticated remote attacker to execute file operations of files outside of the specified root folder. Chained with CVE-2022-43513 this could allow Remote Code Execution.

CVSS v3.1 Base Score      7.7  
CVSS Vector                [CVSS:3.1/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:H/A:L/E:P/RL:O/RC:C](#)  
CWE                         CWE-22: Improper Limitation of a Pathname to a Restricted Directory ('Path Traversal')

### **Vulnerability CVE-2022-44725**

OPC Foundation Local Discovery Server (LDS) in affected products uses a hard-coded file path to a configuration file. This allows a normal user to create a malicious file that is loaded by LDS (running as a high-privilege user).

CVSS v3.1 Base Score      7.8  
CVSS Vector                [CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE                         CWE-20: Improper Input Validation

### **Vulnerability CVE-2022-46908**

SQLite through 3.40.0, when relying on `--safe` for execution of an untrusted CLI script, does not properly implement the `azProhibitedFunctions` protection mechanism, and instead allows UDF functions such as `WRITEFILE`.

CVSS v3.1 Base Score      7.3  
CVSS Vector                [CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:L/E:P/RL:O/RC:C](#)  
CWE                         CWE-311: Missing Encryption of Sensitive Data

**Vulnerability CVE-2023-0215**

The public API function `BIO_new_NDEF` is a helper function used for streaming ASN.1 data via a BIO. It is primarily used internally to OpenSSL to support the SMIME, CMS and PKCS7 streaming capabilities, but may also be called directly by end user applications. The function receives a BIO from the caller, prepends a new `BIO_f_asn1` filter BIO onto the front of it to form a BIO chain, and then returns the new head of the BIO chain to the caller. Under certain conditions, for example if a CMS recipient public key is invalid, the new filter BIO is freed and the function returns a NULL result indicating a failure. However, in this case, the BIO chain is not properly cleaned up and the BIO passed by the caller still retains internal pointers to the previously freed filter BIO. If the caller then goes on to call `BIO_pop()` on the BIO then a use-after-free will occur. This will most likely result in a crash. This scenario occurs directly in the internal function `B64_write_ASN1()` which may cause `BIO_new_NDEF()` to be called and will subsequently call `BIO_pop()` on the BIO. This internal function is in turn called by the public API functions `PEM_write_bio_ASN1_stream`, `PEM_write_bio_CMS_stream`, `PEM_write_bio_PKCS7_stream`, `SMIME_write_ASN1`, `SMIME_write_CMS` and `SMIME_write_PKCS7`. Other public API functions that may be impacted by this include `i2d_ASN1_bio_stream`, `BIO_new_CMS`, `BIO_new_PKCS7`, `i2d_CMS_bio_stream` and `i2d_PKCS7_bio_stream`. The OpenSSL `cms` and `smime` command line applications are similarly affected.

CVSS v3.1 Base Score      5.9  
CVSS Vector                [CVSS:3.1/AV:N/AC:H/PR:N/UI:N/S:U/C:N/I:N/A:H/E:U/RL:O/RC:C](#)  
CWE                         CWE-416: Use After Free

**Vulnerability CVE-2023-0286**

There is a type confusion vulnerability relating to X.400 address processing inside an X.509 `GeneralName`. X.400 addresses were parsed as an `ASN1_STRING` but the public structure definition for `GENERAL_NAME` incorrectly specified the type of the `x400Address` field as `ASN1_TYPE`. This field is subsequently interpreted by the OpenSSL function `GENERAL_NAME_cmp` as an `ASN1_TYPE` rather than an `ASN1_STRING`. When CRL checking is enabled (i.e. the application sets the `X509_V_FLAG_CRL_CHECK` flag), this vulnerability may allow an attacker to pass arbitrary pointers to a `memcmp` call, enabling them to read memory contents or enact a denial of service. In most cases, the attack requires the attacker to provide both the certificate chain and CRL, neither of which need to have a valid signature. If the attacker only controls one of these inputs, the other input must already contain an X.400 address as a CRL distribution point, which is uncommon. As such, this vulnerability is most likely to only affect applications which have implemented their own functionality for retrieving CRLs over a network.

CVSS v3.1 Base Score      7.4  
CVSS Vector                [CVSS:3.1/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:N/A:H/E:U/RL:O/RC:C](#)  
CWE                         CWE-20: Improper Input Validation

**Vulnerability CVE-2023-0464**

A security vulnerability has been identified in all supported versions of OpenSSL related to the verification of X.509 certificate chains that include policy constraints. Attackers may be able to exploit this vulnerability by creating a malicious certificate chain that triggers exponential use of computational resources, leading to a denial-of-service (DoS) attack on affected systems.

Policy processing is disabled by default but can be enabled by passing the `-policy` argument to the command line utilities or by calling the `x509_VERIFY_PARAM_set1_policies()` function.

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-295: Improper Certificate Validation

### **Vulnerability CVE-2023-0465**

Applications that use a non-default option when verifying certificates may be vulnerable to an attack from a malicious CA to circumvent certain checks.

Invalid certificate policies in leaf certificates are silently ignored by OpenSSL and other certificate policy checks are skipped for that certificate. A malicious CA could use this to deliberately assert invalid certificate policies in order to circumvent policy checking on the certificate altogether.

Policy processing is disabled by default but can be enabled by passing the `-policy` argument to the command line utilities or by calling the `X509_VERIFY_PARAM_set1_policies()` function.

CVSS v3.1 Base Score	5.3
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N/E:P/RL:O/RC:C</a>
CWE	CWE-295: Improper Certificate Validation

### **Vulnerability CVE-2023-0466**

The function `X509_VERIFY_PARAM_add0_policy()` is documented to implicitly enable the certificate policy check when doing certificate verification. However the implementation of the function does not enable the check which allows certificates with invalid or incorrect policies to pass the certificate verification.

As suddenly enabling the policy check could break existing deployments it was decided to keep the existing behavior of the `X509_VERIFY_PARAM_add0_policy()` function.

Instead the applications that require OpenSSL to perform certificate policy check need to use `X509_VERIFY_PARAM_set1_policies()` or explicitly enable the policy check by calling `X509_VERIFY_PARAM_set_flags()` with the `X509_V_FLAG_POLICY_CHECK` flag argument.

Certificate policy checks are disabled by default in OpenSSL and are not commonly used by applications.

CVSS v3.1 Base Score	5.3
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:L/A:N/E:P/RL:O/RC:C</a>
CWE	CWE-295: Improper Certificate Validation

### **Vulnerability CVE-2023-3446**

Issue summary: Checking excessively long DH keys or parameters may be very slow. Impact summary: Applications that use the functions `DH_check()`, `DH_check_ex()` or `EVP_PKEY_param_check()` to check a DH key or DH parameters may experience long delays. Where the key or parameters that are being checked have been obtained from an untrusted source this may lead to a Denial of Service. The function `DH_check()` performs various checks on DH parameters. One of those checks confirms that the modulus ('p' parameter) is not too large. Trying to use a very large modulus is slow and OpenSSL will not normally use a modulus which is over 10,000 bits in length. However the `DH_check()` function checks numerous aspects of the key or parameters that have been supplied. Some of those checks use the supplied modulus value even if it has already been found to be too large. An application that calls `DH_check()` and supplies a key or parameters obtained from an untrusted source could be vulnerable to a Denial of Service attack. The function `DH_check()` is itself called by a number of other OpenSSL functions. An application calling any of those other functions may similarly be affected. The other functions affected by this are `DH_check_ex()` and `EVP_PKEY_param_check()`. Also vulnerable are the OpenSSL `dhparam` and `pkeyparam` command line applications when using the '`-check`' option. The OpenSSL SSL/TLS implementation is not affected by this issue. The OpenSSL 3.0 and 3.1 FIPS providers are not affected by this issue.

CVSS v3.1 Base Score	5.3
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:L/E:P/RL:O/RC:C</a>
CWE	CWE-1333: Inefficient Regular Expression Complexity

**Vulnerability CVE-2023-4807**

Issue summary: The POLY1305 MAC (message authentication code) implementation contains a bug that might corrupt the internal state of applications on the Windows 64 platform when running on newer X86\_64 processors supporting the AVX512-IFMA instructions. Impact summary: If in an application that uses the OpenSSL library an attacker can influence whether the POLY1305 MAC algorithm is used, the application state might be corrupted with various application dependent consequences. The POLY1305 MAC (message authentication code) implementation in OpenSSL does not save the contents of non-volatile XMM registers on Windows 64 platform when calculating the MAC of data larger than 64 bytes. Before returning to the caller all the XMM registers are set to zero rather than restoring their previous content. The vulnerable code is used only on newer x86\_64 processors supporting the AVX512-IFMA instructions. The consequences of this kind of internal application state corruption can be various - from no consequences, if the calling application does not depend on the contents of non-volatile XMM registers at all, to the worst consequences, where the attacker could get complete control of the application process. However given the contents of the registers are just zeroized so the attacker cannot put arbitrary values inside, the most likely consequence, if any, would be an incorrect result of some application dependent calculations or a crash leading to a denial of service. The POLY1305 MAC algorithm is most frequently used as part of the CHACHA20-POLY1305 AEAD (authenticated encryption with associated data) algorithm. The most common usage of this AEAD cipher is with TLS protocol versions 1.2 and 1.3 and a malicious client can influence whether this AEAD cipher is used by the server. This implies that server applications using OpenSSL can be potentially impacted. However we are currently not aware of any concrete application that would be affected by this issue therefore we consider this a Low severity security issue. As a workaround the AVX512-IFMA instructions support can be disabled at runtime by setting the environment variable OPENSSL\_ia32cap: OPENSSL\_ia32cap=: 0x200000 The FIPS provider is not affected by this issue.

CVSS v3.1 Base Score      7.8  
CVSS Vector              [CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE                        CWE-20: Improper Input Validation

**Vulnerability CVE-2023-5678**

Issue summary: Generating excessively long X9.42 DH keys or checking excessively long X9.42 DH keys or parameters may be very slow. Impact summary: Applications that use the functions DH\_generate\_key() to generate an X9.42 DH key may experience long delays. Likewise, applications that use DH\_check\_pub\_key(), DH\_check\_pub\_key\_ex() or EVP\_PKEY\_public\_check() to check an X9.42 DH key or X9.42 DH parameters may experience long delays. Where the key or parameters that are being checked have been obtained from an untrusted source this may lead to a Denial of Service. While DH\_check() performs all the necessary checks (as of CVE-2023-3817), DH\_check\_pub\_key() doesn't make any of these checks, and is therefore vulnerable for excessively large P and Q parameters. Likewise, while DH\_generate\_key() performs a check for an excessively large P, it doesn't check for an excessively large Q. An application that calls DH\_generate\_key() or DH\_check\_pub\_key() and supplies a key or parameters obtained from an untrusted source could be vulnerable to a Denial of Service attack. DH\_generate\_key() and DH\_check\_pub\_key() are also called by a number of other OpenSSL functions. An application calling any of those other functions may similarly be affected. The other functions affected by this are DH\_check\_pub\_key\_ex(), EVP\_PKEY\_public\_check(), and EVP\_PKEY\_generate(). Also vulnerable are the OpenSSL pkey command line application when using the "-pubcheck" option, as well as the OpenSSL genpkey command line application. The OpenSSL SSL/TLS implementation is not affected by this issue. The OpenSSL 3.0 and 3.1 FIPS providers are not affected by this issue.

CVSS v3.1 Base Score      5.3  
CVSS Vector              [CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:L/E:P/RL:O/RC:C](#)  
CWE                        CWE-754: Improper Check for Unusual or Exceptional Conditions

**Vulnerability CVE-2023-21528**

Microsoft SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-21568**

Microsoft SQL Server Integration Service (VS extension) Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.3  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:L/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-21704**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-21705**

Microsoft SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 8.8  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-21713**

Microsoft SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 8.8  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-21718**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-23384**

Microsoft SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.3  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:L/I:L/A:L/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

**Vulnerability CVE-2023-28484**

In libxml2 before 2.10.4, parsing of certain invalid XSD schemas can lead to a NULL pointer dereference and subsequently a segfault. This occurs in xmlSchemaFixupComplexType in xmlschemas.c.

CVSS v3.1 Base Score	6.5
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:R/S:U/C:N/I:N/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-476: NULL Pointer Dereference

**Vulnerability CVE-2023-29349**

Microsoft ODBC and OLE DB Remote Code Execution Vulnerability

CVSS v3.1 Base Score	7.8
CVSS Vector	<a href="#">CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-20: Improper Input Validation

**Vulnerability CVE-2023-29356**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score	7.8
CVSS Vector	<a href="#">CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-20: Improper Input Validation

**Vulnerability CVE-2023-29469**

An issue was discovered in libxml2 before 2.10.4. When hashing empty dict strings in a crafted XML document, xmlDictComputeFastKey in dict.c can produce non-deterministic values, leading to various logic and memory errors, such as a double free. This behavior occurs because there is an attempt to use the first byte of an empty string, and any value is possible (not solely the '\0' value).

CVSS v3.1 Base Score	6.5
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:R/S:U/C:N/I:N/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-415: Double Free

**Vulnerability CVE-2023-32025**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score	7.8
CVSS Vector	<a href="#">CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-20: Improper Input Validation

**Vulnerability CVE-2023-32026**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score	7.8
CVSS Vector	<a href="#">CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-20: Improper Input Validation

**Vulnerability CVE-2023-32027**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score	7.8
CVSS Vector	<a href="#">CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-20: Improper Input Validation



### **Vulnerability CVE-2023-32028**

Microsoft SQL OLE DB Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36049**

.NET, .NET Framework, and Visual Studio Elevation of Privilege Vulnerability

CVSS v3.1 Base Score 7.6  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:U/C:L/I:H/A:L/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36417**

Microsoft SQL OLE DB Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36420**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36560**

ASP.NET Security Feature Bypass Vulnerability

CVSS v3.1 Base Score 8.8  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36728**

Microsoft SQL Server Denial of Service Vulnerability

CVSS v3.1 Base Score 5.5  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36730**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36785**

Microsoft ODBC Driver for SQL Server Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36788**

.NET Framework Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-311: Missing Encryption of Sensitive Data

### **Vulnerability CVE-2023-36792**

Visual Studio Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-311: Missing Encryption of Sensitive Data

### **Vulnerability CVE-2023-36793**

Visual Studio Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-311: Missing Encryption of Sensitive Data

### **Vulnerability CVE-2023-36794**

Visual Studio Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-311: Missing Encryption of Sensitive Data

### **Vulnerability CVE-2023-36796**

Visual Studio Remote Code Execution Vulnerability

CVSS v3.1 Base Score 7.8  
CVSS Vector [CVSS:3.1/AV:L/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-311: Missing Encryption of Sensitive Data

### **Vulnerability CVE-2023-36873**

.NET Framework Spoofing Vulnerability

CVSS v3.1 Base Score 7.4  
CVSS Vector [CVSS:3.1/AV:N/AC:H/PR:N/UI:N/S:U/C:H/I:H/A:N/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-36899**

ASP.NET Elevation of Privilege Vulnerability

CVSS v3.1 Base Score 8.8  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:L/UI:N/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-38169**

Microsoft SQL OLE DB Remote Code Execution Vulnerability

CVSS v3.1 Base Score 8.8  
CVSS Vector [CVSS:3.1/AV:N/AC:L/PR:N/UI:R/S:U/C:H/I:H/A:H/E:P/RL:O/RC:C](#)  
CWE CWE-20: Improper Input Validation

### **Vulnerability CVE-2023-39615**

Xmlsoft Libxml2 v2.11.0 was discovered to contain an out-of-bounds read via the xmlSAX2StartElement() function at /libxml2/SAX2.c. This vulnerability allows attackers to cause a Denial of Service (DoS) via supplying a crafted XML file. NOTE: the vendor's position is that the product does not support the legacy SAX1 interface with custom callbacks; there is a crash even without crafted input.

CVSS v3.1 Base Score	6.5
CVSS Vector	<a href="#">CVSS:3.1/AV:N/AC:L/PR:N/UI:R/S:U/C:N/I:N/A:H/E:P/RL:O/RC:C</a>
CWE	CWE-119: Improper Restriction of Operations within the Bounds of a Memory Buffer

### **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 (2024-04-09): Publication Date

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