Industrial Cybersecurity Center

ICS Vulnerabilities
CCI Thermometer
2021- 12

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Industrial Cybersecurity professional for more than ten years in different companies such as Schneider Electric, S21sec, EY, SecurityMatters, Forescout, Telefonica and currently at TITANIUM Industrial Security.

Active member of the Industrial Cybersecurity Center's ecosystem since 2013, Black Level professional and participating as author and reviewer of different studies and documents carried out by it.

Introduction

Since the publication of the notebook "A decade of ICS vulnerabilities" on May 4, 2020, new vulnerabilities have been published on ICS systems, which has changed the exposure to risk of the manufacturers included in that notebook.

From the CCI we want to keep this information updated to provide a view of the evolution of these vulnerabilities so that the ecosystem can use them as necessary in a publication that we will call the CCI ICS Vulnerability Thermometer.

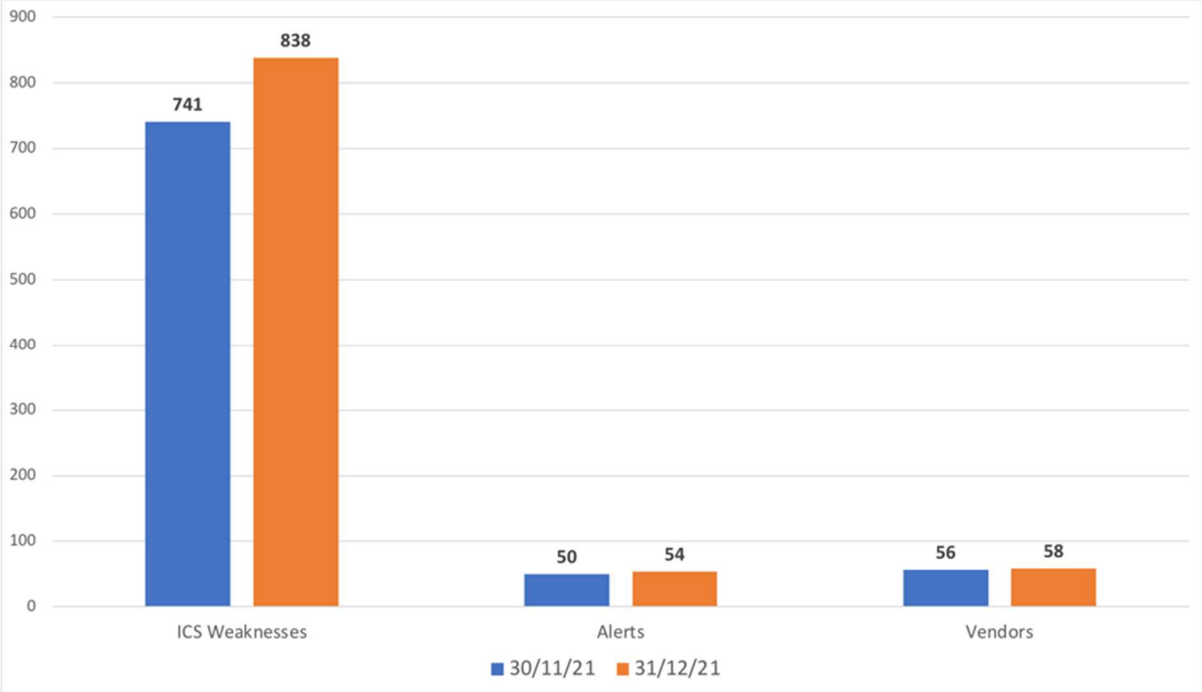
In each update we will publish:

- Evolution of the number of control manufacturers included in the thermometer for the current period.
- Evolution of vulnerabilities and alerts from control manufacturers included in the thermometer.
- The manufacturers heat exposure risk map updated as of publication date.
- Comments about the evolution of the risk map.

2021 Developments

To adapt to the growing casuistry of public vulnerabilities that affect various manufacturers, in 2021 a new criterion will be applied, publishing each of the manufacturers affected by this single vulnerability (CVE). To be consistent with this new approach, in 2021 we will speak of "ICS Weaknesses" to accommodate these multi-vendor vulnerabilities.

Manufacturers and ICS weaknesses



New manufacturers

In this edition of the CCI Thermometer, **2** new **manufacturers** are included, and their number increases to **58** in 2021:

Low Risk	Midium Risk	High Risk	Very High Risk
Insulet WECON	N/A	N/A	N/A

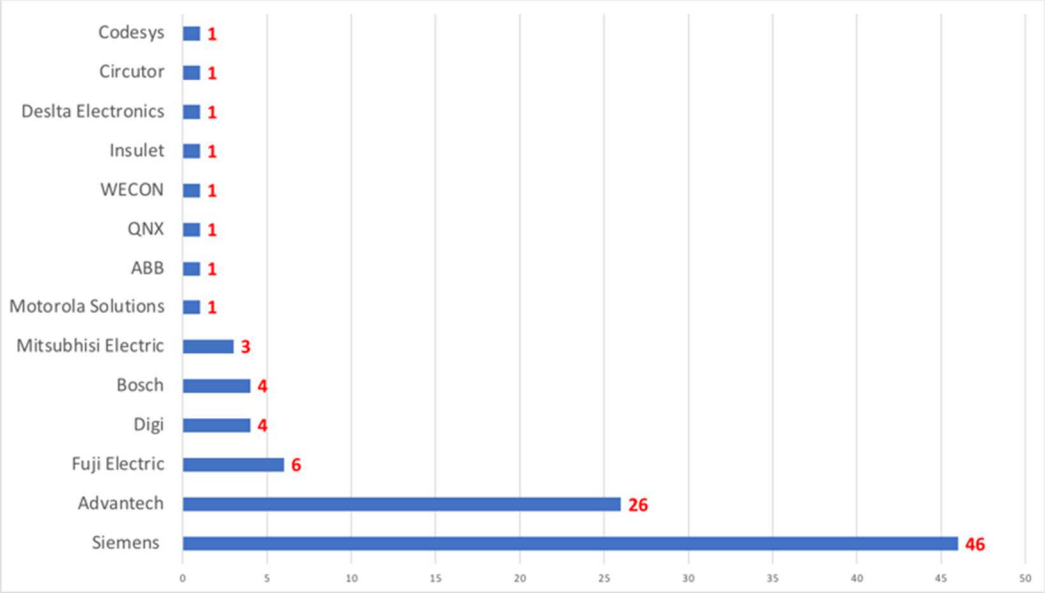
In the case of **Insulet**, the published **weakness** is associated with its Insulet Omnipod product and affects all versions due to the lack of authentication and authorization in its wireless communications protocol. The ICS-CERT / CISA has issued an alert on these weaknesses (**ICSMA-20-079-01**), although their CVSS V2 evaluations do not qualify them as CCI thermometer alerts as they do not impact their availability.

The manufacturer **WECON** sees published **1 weakness** affecting its LeviStudioU products (Versions 2019-09-21 and earlier). The ICS-CERT / CISA has published 1 related alert (**ICSA-21-343-02**), although according to the criteria of the CCI thermometer on alerts, it is not classified as such.

New weaknesses

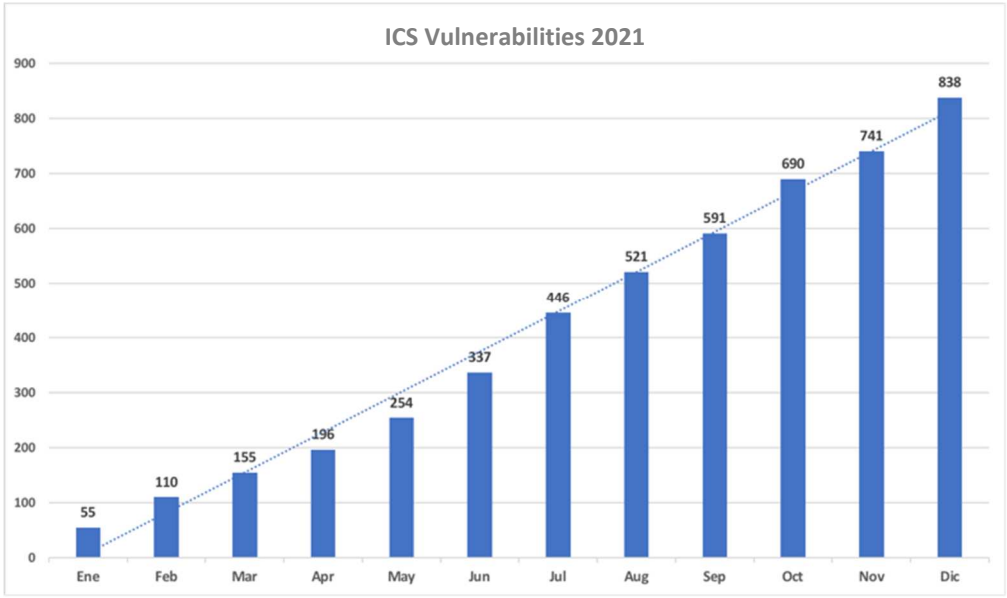
The number of ICS vulnerabilities published and **fully characterized** by NIST since the last update is **97**.

Once again, Siemens stands out among the manufacturers studied:



The detail of these weaknesses characterized in December can be found in **ANNEX II**.

At the end of 2021, we can see that the trend in the investigation of weaknesses in the control systems used in multiple sectors continues to grow steadily.



New alerts

This month, NIST has released (fully characterized) 4 new manufacturer alerts.

We recall that they are classified as alerts since the exploitation of the vulnerability has low complexity, has the network as an access vector and can cause a total loss of service. (Based on CVSS V2 classification, to allow historical classification of weaknesses in older products).

Siemens has seen 1 alert published about its POWER METER SICAM Q100 products:

Siemens Power Meter SICAM

CVE	Date published	CVSS V2	Warning	Description
CVE-2021-44165	2021-12-14	9.0	⚠	A vulnerability has been identified in POWER METER SICAM Q100 (All versions < V2.41), POWER METER SICAM Q100 (All versions < V2.41), POWER METER SICAM Q100 (All versions < V2.41), POWER METER SICAM Q100 (All versions < V2.41). The affected firmware contains a buffer overflow vulnerability in the web application that could allow a remote attacker with engineer or admin priviliges to potentially perform remote code execution.

Circutor vuelve a ver publicada otra alerta sobre uno de sus productos, el concentrador de Smart Meters CIRCUTOR COMPACT DC-S BASIC.

Circutor Compact DC-S Basic

CVE	Date published	CVSS V2	Warning	Description
CVE-2021-26777	2021-12-02	10.0	⚠	Buffer overflow vulnerability in function SetFirewall in index.cgi in CIRCUTOR COMPACT DC-S BASIC smart metering concentrator Firwmare version CIR_CDC_v1.2.17, allows attackers to execute arbitrary code.

Once again, this weakness is associated with the device's Web interface, not sufficiently protected against the size of the data inputs (CWE-120). Circutor ends 2021 with a High risk exposure and an average CVSS V2 of 9.0.

Digi is the next manufacturer to have an alert posted about their products.
In particular, weakness has been detected on its TransPort DR64, SR44 VC74, and WR communications products:

Digi TransPort WR

The weakness is associated with the weakness of a proprietary protocol (ZING) that is used for the total configuration of these devices through the Ethernet network.

CVE	Date published	CVSS V2	Warning	Description
CVE-2021-35978	2021-12-10	10.0	⚠	An issue was discovered in Digi TransPort DR64, SR44 VC74, and WR. The ZING protocol allows arbitrary remote command execution with SUPER privileges. This allows an attacker (with knowledge of the protocol) to execute arbitrary code on the controller including overwriting firmware, adding/removing users, disabling the internal firewall, etc.

The latest alert published affects different Bosch video recording and playback products.

CVE	Date published	CVSS V2	Warning	Description
CVE-2021-23862	2021-12-08	9.0	⚠	A crafted configuration packet sent by an authenticated administrative user can be used to execute arbitrary commands in system context. This issue also affects installations of the VRM, DIVAR IP, BVMS with VRM installed, the VIDEOJET decoder (VJD-7513 and VJD-8000).

This manufacturer has accumulated 28 weaknesses published in 2021 and presents an average CVSS V2 of 5.7 in the last 10 years.

Risk map

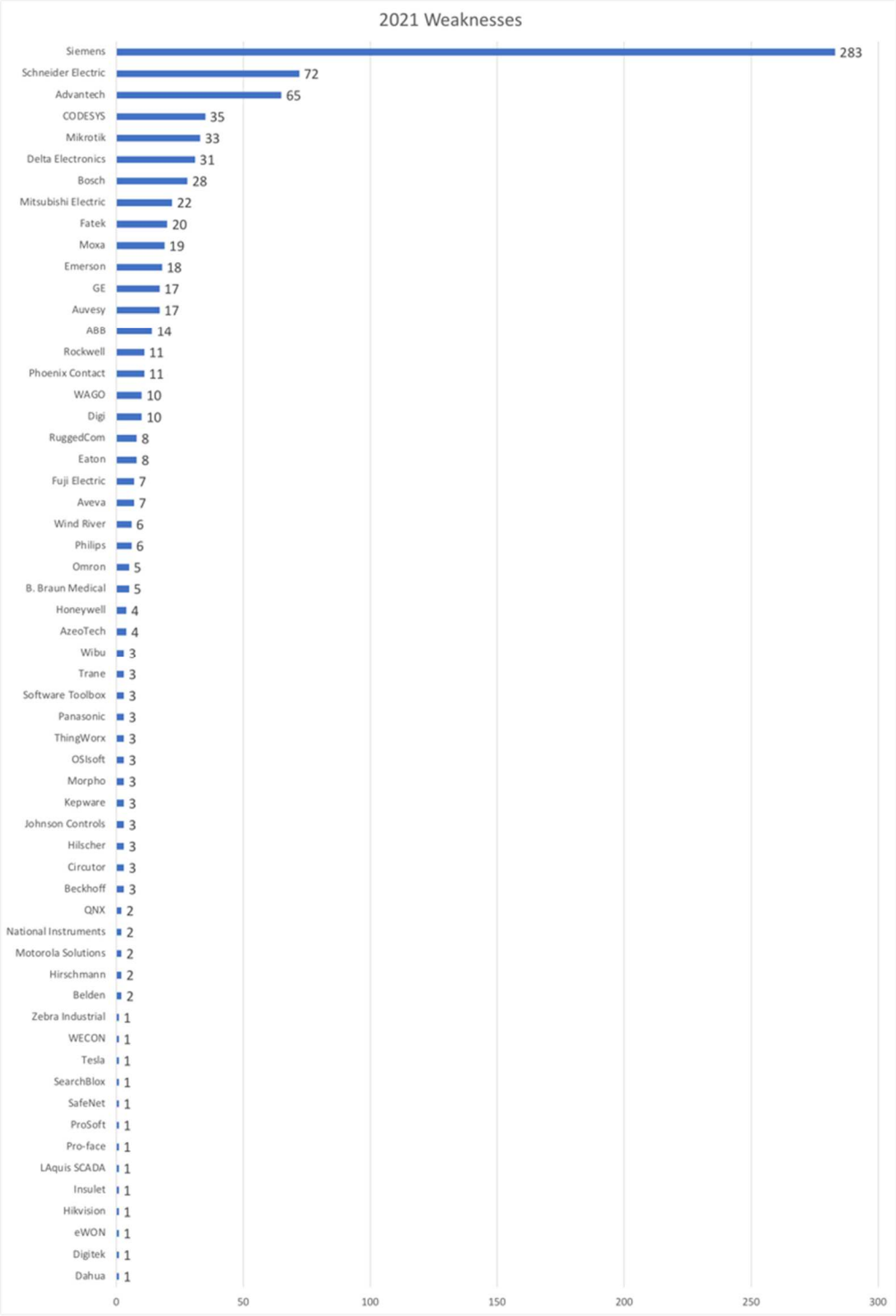
December 31, 2021

	Circutor	Dahua		
Digitek Hikvision Johnson Controls Pro-face Zebra Industrial	Advantech Auvesy B. Braun Medical Beckhoff Bosch Delta Electronics Digi Emerson Hilscher Miitsubishi Electric Morpho Moxa Panasonic Phoenix Contact RugggedCom Schneider Electric Wago			Siemens
ABB Belden CODESYS Eaton eWON Fatek Fuji Electric Hirschmann Honeywell Kepware LAquis SCADA Omron PTC (ThingWorx) QNX Rockwell Software Toolbox WECON Wind River	GE Mikrotik			
Aveva Azeotech Insulet Motorola Solutions National Instruments OSIsoft Philips ProSoft SafeNet SearchBlox Tesla Trane Wibu Systems				

Changes in manufacturing risk

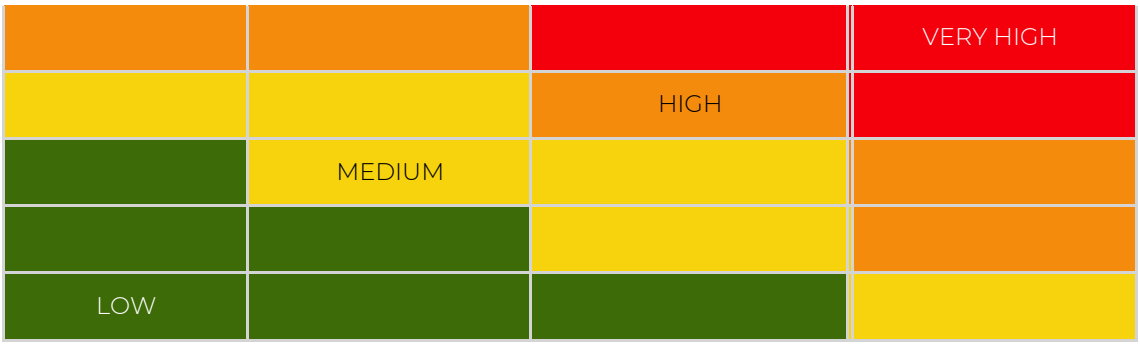
Only the inclusion of **WECON** and **Insulet** in the risk exposure map is a novelty.

The rest of the manufacturers maintain their level in the qualitative heat map of risk exposure and highlight the **283 vulnerabilities** published by the NIST in 2021 for the manufacturer **Siemens**.



ANNEX – I: Risk map calculation

In order to show the position of each manufacturer graphically and quickly in relation to the risk associated with the published vulnerabilities, I have selected a very common graphic format in Risk management: the heat map.
This diagram presents different colours to represent the associated risk in a qualitative way and in four ranges: Low, Medium, High and Very High.



The position of each manufacturer within the map depends on the values obtained in two parameters associated with the **probability** (Number of CVEs published) and the **impact** of those CVEs (CVSS average value).
For each year, each of these values has been calculated between 1 and 5.

- On the horizontal axis, the value proportional to the number of CVEs published for that manufacturer in a specific year has been calculated compared to the manufacturer with the highest number of CVEs.
- On the vertical axis, the average CVSS value of the CVEs published that year was calculated and divided by 2.

To try to give a more qualitative idea regarding the position of each manufacturer, two corrections have been introduced in the calculation:

- In the manufacturer has any CVE that year considered as **Alert** (Access by network, low complexity, and full impact on availability), the impact is increased by one unit (vertical axis) and by one unit the probability (horizontal axis). This is done to differentiate this manufacturer from others without this type of CVEs and position it in a higher risk area.
- In the same way, if a manufacturer has a CVE that year with a CVSS value of 10.0, the probability (horizontal axis) is increased by one unit. This is done to differentiate this manufacturer from others without this type of CVEs and position it in a higher risk area.

It has been studied through different simulations that these corrections do not suppose great alterations in the global risk posture of that manufacturer and, nevertheless, they present a more adjusted qualitative diagnosis.

ANNEX II – Vulnerabilities published by NIST since the last CCI Thermometer

CVE	Date published	CVSS	Warning	Description
CVE-2021-44165	2021-12-14	9.0	⚠	A vulnerability has been identified in POWER METER SICAM Q100 (All versions < V2.41), POWER METER SICAM Q100 (All versions < V2.41), POWER METER SICAM Q100 (All versions < V2.41), POWER METER SICAM Q100 (All versions < V2.41). The affected firmware contains a buffer overflow vulnerability in the web application that could allow a remote attacker with engineer or admin priviliges to potentially perform remote code execution.
CVE-2021-35978	2021-12-10	10.0	⚠	An issue was discovered in Digi TransPort DR64, SR44 VC74, and WR. The ZING protocol allows arbitrary remote command execution with SUPER privileges. This allows an attacker (with knowledge of the protocol) to execute arbitrary code on the controller including overwriting firmware, adding/removing users, disabling the internal firewall, etc.
CVE-2021-23862	2021-12-08	9.0	⚠	A crafted configuration packet sent by an authenticated administrative user can be used to execute arbitrary commands in system context. This issue also affects installations of the VRM, DIVAR IP, BVMS with VRM installed, the VIDEOJET decoder (VJD-7513 and VJD-8000).
CVE-2021-26777	2021-12-02	10.0	⚠	Buffer overflow vulnerability in function SetFirewall in index.cgi in CIRCUTOR COMPACT DC-S BASIC smart metering concentrator Firwmare version CIR_CDC_v1.2.17, allows attackers to execute arbitrary code.
CVE-2021-21916	2021-12-22	7.5		An exploitable SQL injection vulnerability exist in the 'group_list' page of the Advantech R-SeeNet 2.4.15 (30.07.2021). A specially-crafted HTTP request at 'description_filter' parameter. An attacker can make authenticated HTTP requests to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21910	2021-12-22	7.2		A privilege escalation vulnerability exists in the Windows version of installation for Advantech R-SeeNet Advantech R-SeeNet 2.4.15 (30.07.2021). A specially-crafted file can be replaced in the system to escalate privileges to NT SYSTEM authority. An attacker can provide a malicious file to trigger this vulnerability.
CVE-2021-21915	2021-12-22	6.5		An exploitable SQL injection vulnerability exist in the 'group_list' page of the Advantech R-SeeNet 2.4.15 (30.07.2021). A specially-crafted HTTP request at 'company_filter' parameter. An attacker can make authenticated HTTP requests to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21917	2021-12-22	6.5		An exploitable SQL injection vulnerability exist in the 'group_list' page of the Advantech R-SeeNet 2.4.15 (30.07.2021). A specially-crafted HTTP request at ''ord' parameter. An attacker can make authenticated HTTP requests to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21922	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'username_filter' parameter with the administrative account or through cross-site request forgery.
CVE-2021-21920	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'surname_filter' parameter with the administrative account or through cross-site request forgery.
CVE-2021-21918	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'name_filter' parameter. However, the high privilege super-administrator account needs to be used to achieve exploitation without cross-site request forgery attack.
CVE-2021-21921	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'name_filter' parameter with the administrative account or through cross-site request forgery.
CVE-2021-21937	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'host_alt_filter' parameter. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21935	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'host_alt_filter2' parameter. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21936	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'health_alt_filter' parameter. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21923	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at 'company_filter' parameter with the administrative account or through cross-site request forgery.

CVE	Date published	CVSS	Warning	Description
CVE-2021-21919	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this vulnerability at ord' parameter. However, the high privilege super-administrator account needs to be used to achieve exploitation without cross-site request forgery attack.
CVE-2021-21932	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this at 'name_filter' parameter. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21934	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this at 'imei_filter' parameter. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21933	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger this at 'esn_filter' parameter. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21927	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger these vulnerabilities. This can be done as any authenticated user or through cross-site request forgery at 'loc_filter' parameter.
CVE-2021-21925	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger these vulnerabilities. This can be done as any authenticated user or through cross-site request forgery at 'firm_filter' parameter.
CVE-2021-21924	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger these vulnerabilities. This can be done as any authenticated user or through cross-site request forgery at 'desc_filter' parameter.
CVE-2021-21931	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests at' stat_filter' parameter to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21930	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests at 'sn_filter' parameter to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21929	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests at 'prod_filter' parameter to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21928	2021-12-22	6.5		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests at 'mac_filter' parameter to trigger this vulnerability. This can be done as any authenticated user or through cross-site request forgery.
CVE-2021-21926	2021-12-22	4.0		A specially-crafted HTTP request can lead to SQL injection. An attacker can make authenticated HTTP requests to trigger these vulnerabilities. This can be done as any authenticated user or through cross-site request forgery at 'health_filter' parameter.
CVE-2021-38401	2021-12-20	6.8		Fuji Electric V-Server Lite and Tellus Lite V-Simulator prior to v4.0.12.0 is vulnerable to an untrusted pointer dereference, which may allow an attacker to execute arbitrary code and cause the application to crash.
CVE-2021-38419	2021-12-20	6.8		Fuji Electric V-Server Lite and Tellus Lite V-Simulator prior to v4.0.12.0 is vulnerable to an out-of-bounds write, which can result in data corruption, a system crash, or code execution.
CVE-2021-38409	2021-12-20	6.8		Fuji Electric V-Server Lite and Tellus Lite V-Simulator prior to v4.0.12.0 is vulnerable to an access of uninitialized pointer, which may allow an attacker read from or write to unexpected memory locations, leading to a denial-of-service.
CVE-2021-38413	2021-12-20	6.8		Fuji Electric V-Server Lite and Tellus Lite V-Simulator prior to v4.0.12.0 is vulnerable to a stack-based buffer overflow, which may allow an attacker to achieve code execution.
CVE-2021-38415	2021-12-20	6.8		Fuji Electric V-Server Lite and Tellus Lite V-Simulator prior to v4.0.12.0 is vulnerable a heap-based buffer overflow when parsing a specially crafted project file, which may allow an attacker to execute arbitrary code.
CVE-2021-38421	2021-12-20	5.8		Fuji Electric V-Server Lite and Tellus Lite V-Simulator prior to v4.0.12.0 is vulnerable to an out-of-bounds read, which may allow an attacker to read sensitive information from other memory locations or cause a crash.
CVE-2021-20608	2021-12-17	5.0		Improper Handling of Length Parameter Inconsistency vulnerability in Mitsubishi Electric GX Works2 versions 1.606G and prior allows a remote unauthenticated attacker to cause a DoS condition in GX Works2 by getting GX Works2 to read a tampered program file from a Mitsubishi Electric PLC by sending malicious crafted packets to tamper with the program file.
CVE-2021-20606	2021-12-17	4.3		Out-of-bounds Read vulnerability in Mitsubishi Electric GX Works2 versions 1.606G and prior, MELSOFT Navigator all versions and EZSocket all versions allows an attacker to cause a DoS condition in the software by getting a user to open malicious project file specially crafted by an attacker.
CVE-2021-20607	2021-12-17	4.3		Integer Underflow vulnerability in Mitsubishi Electric GX Works2 versions 1.606G and prior, MELSOFT Navigator all versions and EZSocket all versions allows an attacker to cause a DoS condition in the software by getting a user to open malicious project file specially crafted by an attacker.

CVE	Date published	CVSS	Warning	Description
CVE-2021-38701	2021-12-15	3.5		Certain Motorola Solutions Avigilon devices allow XSS in the administrative UI. This affects T200/201 before 4.10.0.68; T290 before 4.4.0.80; T008 before 2.2.0.86; T205 before 4.12.0.62; T204 before 3.28.0.166; and T100, T101, T102, and T103 before 2.6.0.180.
CVE-2021-44524	2021-12-14	7.5		A vulnerability has been identified in SiPass integrated V2.76 (All versions), SiPass integrated V2.80 (All versions), SiPass integrated V2.85 (All versions), Siveillance Identity V1.5 (All versions), Siveillance Identity V1.6 (All versions < V1.6.284.0). Affected applications insufficiently limit the access to the internal user authentication service. This could allow an unauthenticated remote attacker to trigger several actions on behalf of valid user accounts.
CVE-2021-42024	2021-12-14	6.8		A vulnerability has been identified in Simcenter STAR-CCM+ Viewer (All versions < 2021.3.1). The starview+.exe application lacks proper validation of user-supplied data when parsing scene files. This could result in an out of bounds write past the end of an allocated structure. An attacker could leverage this vulnerability to execute code in the context of the current process.
CVE-2021-44435	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to stack based buffer overflow while parsing specially crafted JT files. An attacker could leverage this vulnerability to execute code in the context of the current process. (ZDI-CAN-14903)
CVE-2021-44432	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to stack based buffer overflow while parsing specially crafted JT files. An attacker could leverage this vulnerability to execute code in the context of the current process. (ZDI-CAN-14845)
CVE-2021-44440	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to memory corruption condition while parsing specially crafted JT files. An attacker could leverage this vulnerability to execute code in the context of the current process. (ZDI-CAN-14912)
CVE-2021-44438	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14907)
CVE-2021-44437	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14906)
CVE-2021-44434	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14902, ZDI-CAN-14866)
CVE-2021-44430	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14829)
CVE-2021-44439	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-14908)
CVE-2021-44445	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products contains an out of bounds write past the fixed-length heap-based buffer while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-15054)
CVE-2021-44442	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products contains an out of bounds write past the fixed-length heap-based buffer while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14995)
CVE-2021-44443	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products contains an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-15039)
CVE-2021-44441	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products contains an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14913)
CVE-2021-44433	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products contains a use after free vulnerability that could be triggered while parsing specially crafted JT files. An attacker could leverage this vulnerability to execute code in the context of the current process. (ZDI-CAN-14900)

CVE	Date published	CVSS	Warning	Description
CVE-2021-44446	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.0.3.0), JTTK (All versions < V11.0.3.0). JTTK library in affected products contains an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14828, ZDI-CAN-14898)
CVE-2021-44447	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V13.0.3.0), JTTK (All versions < V11.0.3.0). JTTK library in affected products contains a use-after-free vulnerability that could be triggered while parsing specially crafted JT files. An attacker could leverage this vulnerability to execute code in the context of the current process. (ZDI-CAN-14911)
CVE-2021-44450	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V12.8.1.1), JTTK (All versions < V10.8.1.1). JTTK library in affected products is vulnerable to an out of bounds read past the end of an allocated buffer when parsing JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-15055, ZDI-CAN-14915, ZDI-CAN-14865)
CVE-2021-44449	2021-12-14	6.8		A vulnerability has been identified in JT Utilities (All versions < V12.8.1.1), JTTK (All versions < V10.8.1.1). JTTK library in affected products contains an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14830)
CVE-2021-44005	2021-12-14	6.8		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Tiff_Loader.dll contains an out of bounds write past the end of an allocated structure while parsing specially crafted TIFF files. This could allow an attacker to execute code in the context of the current process.
CVE-2021-44002	2021-12-14	6.8		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Jt1001.dll contains an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-15058)
CVE-2021-44014	2021-12-14	6.8		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Jt1001.dll contains a use-after-free vulnerability that could be triggered while parsing specially crafted JT files. An attacker could leverage this vulnerability to execute code in the context of the current process. (ZDI-CAN-15057)
CVE-2021-44001	2021-12-14	6.8		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The DL180pdfl.dll contains an out of bounds write past the end of an allocated structure while parsing specially crafted PDF files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-14974)
CVE-2021-44013	2021-12-14	6.8		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The DL180pdfl.dll contains an out of bounds write past the end of an allocated structure while parsing specially crafted JT files. This could allow an attacker to execute code in the context of the current process. (ZDI-CAN-15103)
CVE-2021-41547	2021-12-14	6.5		A vulnerability has been identified in Teamcenter Active Workspace V4.3 (All versions < V4.3.11), Teamcenter Active Workspace V5.0 (All versions < V5.0.10), Teamcenter Active Workspace V5.1 (All versions < V5.1.6), Teamcenter Active Workspace V5.2 (All versions < V5.2.3). The application contains an unsafe unzipping pattern that could lead to a zip path traversal attack. This could allow and attacker to execute a remote shell with admin rights.
CVE-2021-44523	2021-12-14	6.4		A vulnerability has been identified in SiPass integrated V2.76 (All versions), SiPass integrated V2.80 (All versions), SiPass integrated V2.85 (All versions), Siveillance Identity V1.5 (All versions), Siveillance Identity V1.6 (All versions < V1.6.284.0). Affected applications insufficiently limit the access to the internal activity feed database. This could allow an unauthenticated remote attacker to read, modify or delete activity feed entries.
CVE-2021-42027	2021-12-14	5.8		A vulnerability has been identified in SINUMERIK Edge (All versions < V3.2). The affected software does not properly validate the server certificate when initiating a TLS connection. This could allow an attacker to spoof a trusted entity by interfering in the communication path between the client and the intended server.
CVE-2021-44522	2021-12-14	5.0		A vulnerability has been identified in SiPass integrated V2.76 (All versions), SiPass integrated V2.80 (All versions), SiPass integrated V2.85 (All versions), Siveillance Identity V1.5 (All versions), Siveillance Identity V1.6 (All versions < V1.6.284.0). Affected applications insufficiently limit the access to the internal message broker system. This could allow an unauthenticated remote attacker to subscribe to arbitrary message queues.
CVE-2021-44444	2021-12-14	4.3		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-15052)
CVE-2021-44436	2021-12-14	4.3		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-14905)

CVE	Date published	CVSS	Warning	Description
CVE-2021-44431	2021-12-14	4.3		A vulnerability has been identified in JT Utilities (All versions < V13.1.1.0), JTTK (All versions < V11.1.1.0). JTTK library in affected products is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-14841)
CVE-2021-44448	2021-12-14	4.3		A vulnerability has been identified in JT Utilities (All versions < V13.0.3.0), JTTK (All versions < V11.0.3.0). JTTK library in affected products is vulnerable to an out of bounds read past the end of an allocated buffer when parsing JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-14843, ZDI-CAN-15051)
CVE-2021-44015	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The VCRUNTIME140.dll is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted CGM files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-15109)
CVE-2021-44003	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Tiff_Loader.dll is vulnerable to use of uninitialized memory while parsing user supplied TIFF files. This could allow an attacker to cause a denial-of-service condition.
CVE-2021-44004	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Tiff_Loader.dll is vulnerable to an out of bounds read past the end of an allocated buffer when parsing TIFF files. An attacker could leverage this vulnerability to leak information in the context of the current process.
CVE-2021-44007	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Tiff_Loader.dll contains an off-by-one error in the heap while parsing specially crafted TIFF files. This could allow an attacker to cause a denial-of-service condition.
CVE-2021-44011	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Jt1001.dll is vulnerable to an out of bounds read past the end of an allocated buffer while parsing specially crafted JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-15101)
CVE-2021-44012	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Jt1001.dll is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted JT files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-15102)
CVE-2021-44017	2021-12-14	4.3		A vulnerability has been identified in JT2Go (All versions < V13.2.0.5), Teamcenter Visualization (All versions < V13.2.0.5). The Image.dll is vulnerable to an out of bounds read past the end of an allocated buffer when parsing specially crafted TIF files. An attacker could leverage this vulnerability to leak information in the context of the current process. (ZDI-CAN-15111)
CVE-2021-42022	2021-12-14	3.5		A vulnerability has been identified in SIMATIC eaSie PCS 7 Skill Package (All versions < V21.00 SP3). When downloading files, the affected systems do not properly neutralize special elements within the pathname. An attacker could then cause the pathname to resolve to a location outside of the restricted directory on the server and read unexpected critical files. The affected file download function is disabled by default.
CVE-2021-42023	2021-12-14	2.1		A vulnerability has been identified in ModelSim Simulation (All versions), Questa Simulation (All versions). The RSA white-box implementation in affected applications insufficiently protects the built-in private keys that are required to decrypt electronic intellectual property (IP) data in accordance with the IEEE 1735 recommended practice. This could allow a sophisticated attacker to discover the keys, bypassing the protection intended by the IEEE 1735 recommended practice.
CVE-2021-22279	2021-12-13	9.3		A Missing Authentication vulnerability in RobotWare for the OmniCore robot controller allows an attacker to read and modify files on the robot controller if the attacker has access to the Connected Services Gateway Ethernet port.
CVE-2021-32024	2021-12-13	7.5		A remote code execution vulnerability in the BMP image codec of BlackBerry QNX SDP version(s) 6.4 to 7.1 could allow an attacker to potentially execute code in the context of the affected process.
CVE-2021-43983	2021-12-13	6.8		WECON LeviStudioU Versions 2019-09-21 and prior are vulnerable to multiple stack-based buffer overflow instances while parsing project files, which may allow an attacker to execute arbitrary code.
CVE-2021-37188	2021-12-10	6.5		An issue was discovered on Digi TransPort devices through 2021-07-21. An authenticated attacker may load customized firmware (because the bootloader does not verify that it is authentic), changing the behavior of the gateway.
CVE-2021-37189	2021-12-10	5.0		An issue was discovered on Digi TransPort Gateway devices through 5.2.13.4. They do not set the Secure attribute for sensitive cookies in HTTPS sessions, which could cause the user agent to send those cookies in cleartext over an HTTP session.

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CVE-2021-37187	2021-12-10	4.0		An issue was discovered on Digi TransPort devices through 2021-07-21. An authenticated attacker may read a password file (with reversible passwords) from the device, which allows decoding of other users' passwords.
CVE-2021-43982	2021-12-09	6.8		Delta Electronics CNCSoft Versions 1.01.30 and prior are vulnerable to a stack-based buffer overflow, which may allow an attacker to execute arbitrary code.
CVE-2021-23861	2021-12-08	5.5		By executing a special command, an user with administrative rights can get access to extended debug functionality on the VRM allowing an impact on integrity or availability of the installed software. This issue also affects installations of the DIVAR IP and BVMS with VRM installed.
CVE-2021-23859	2021-12-08	5.0		An unauthenticated attacker is able to send a special HTTP request, that causes a service to crash. In case of a standalone VRM or BVMS with VRM installation this crash also opens the possibility to send further unauthenticated commands to the service. On some products the interface is only local accessible lowering the CVSS base score. For a list of modified CVSS scores, please see the official Bosch Advisory Appendix chapter Modified CVSS Scores for CVE-2021-23859
CVE-2021-23860	2021-12-08	4.3		An error in a page handler of the VRM may lead to a reflected cross site scripting (XSS) in the web-based interface. To exploit this vulnerability an attack must be able to modify the HTTP header that is sent. This issue also affects installations of the DIVAR IP and BVMS with VRM installed.
CVE-2021-34599	2021-12-01	5.8		Affected versions of CODESYS Git in Versions prior to V1.1.0.0 lack certificate validation in HTTPS handshakes. CODESYS Git does not implement certificate validation by default, so it does not verify that the server provides a valid and trusted HTTPS certificate. Since the certificate of the server to which the connection is made is not properly verified, the server connection is vulnerable to a man-in-the-middle attack.
CVE-2020-10627	2021-12-01	4.8		Insulet Omnipod Insulin Management System insulin pump product ID 19191 and 40160 is designed to communicate using a wireless RF with an Insulet manufactured Personal Diabetes Manager device. This wireless RF communication protocol does not properly implement authentication or authorization. An attacker with access to one of the affected insulin pump models may be able to modify and/or intercept data. This vulnerability could also allow attackers to change pump settings and control insulin delivery.
CVE-2021-35533	2021-11-26	7.1		Improper Input Validation vulnerability in the APDU parser in the Bidirectional Communication Interface (BCI) IEC 60870-5-104 function of Hitachi Energy RTU500 series allows an attacker to cause the receiving RTU500 CMU of which the BCI is enabled to reboot when receiving a specially crafted message. By default, BCI IEC 60870-5-104 function is disabled (not configured). This issue affects: Hitachi Energy RTU500 series CMU Firmware version 12.0.* (all versions); CMU Firmware version 12.2.* (all versions); CMU Firmware version 12.4.* (all versions).