

CYBER SECURITY ADVISORY

PPT30

OPC-UA Server has issues handling concurrent connections

CVE ID: CVE-2025-11482

Notice

The information in this document is subject to change without notice, and should not be construed as a commitment by B&R.

B&R provides no warranty, express or implied, including warranties of merchantability and fitness for a particular purpose, for the information contained in this document, and assumes no responsibility for any errors that may appear in this document. In no event shall B&R or any of its suppliers be liable for direct, indirect, special, incidental or consequential damages of any nature or kind arising from the use of this document, or from the use of any hardware or software described in this document, even if B&R or its suppliers have been advised of the possibility of such damages.

This document and parts hereof must not be reproduced or copied without written permission from B&R, and the contents hereof must not be imparted to a third party nor used for any unauthorized purpose.

All rights to registrations and trademarks reside with their respective owners.

Purpose

B&R has a rigorous internal cyber security continuous improvement process which involves regular testing with industry leading tools and periodic assessments to identify potential product issues. Occasionally an issue is determined to be a design or coding flaw with implications that may impact product cyber security.

When a potential product vulnerability is identified or reported, B&R immediately initiates our vulnerability handling process. This entails validating if the issue is in fact a product issue, identifying root causes, determining what related products may be impacted, developing a remediation, and notifying end users and governmental organizations.

The resulting Cyber Security Advisory intends to notify customers of the vulnerability and provide details on which products are impacted, how to mitigate the vulnerability or explain workarounds that minimize the potential risk as much as possible. The release of a Cyber Security Advisory should not be misconstrued as an affirmation or indication of an active threat or ongoing campaign targeting the products mentioned here. If B&R is aware of any specific threats, it will be clearly mentioned in the communication.

The publication of this Cyber Security Advisory is an example of B&R's commitment to the user community in support of this critical topic. Responsible disclosure is an important element in the chain of trust we work to maintain with our many customers. The release of an Advisory provides timely information which is essential to help ensure our customers are fully informed.

Affected products

PPT30 Operating System < 1.8.0

Vulnerability IDs

CVE-2025-11482

Summary

B&R is aware of a vulnerability in the product versions listed above.

An attacker who successfully exploits this vulnerability could make the OPC-UA server of the product inaccessible.

Recommended immediate actions

The problem is corrected in the following product versions:

PPT30 Operating System 1.8.0

The OPC-UA server is not activated by default. B&R recommends that customers with the OPC-UA Server enabled to install the update at their earliest opportunity.

The process to install updates is described in the user manual. The step to identify the installed product version is described in the user manual.

Vulnerability severity and details

A vulnerability exists in the OPC-UA Server included in the product versions listed above. An attacker could exploit the vulnerability by sending messages to the system node, causing the OPC-UA server to become permanent inaccessible. A reboot is required to bring the OPC-UA server back into normal operation.

The severity assessment has been performed by using the FIRST Common Vulnerability Scoring System (CVSS)¹ for both v3.1² and v4.0³.

The indicated Common Weakness Enumerations (CWE) have been selected from the MITRE CWE list⁴.

CVE-2025-11482

An Allocation of Resources Without Limits or Throttling vulnerability in the OPC-UA Server used in PPT30 Operating System versions before 1.8.0 may be used by an unauthenticated network-based attacker to permanently prevent legitimate users from interacting with the service.

CVSS

CVSS v3.1 Base Score: 7.5
CVSS v3.1 Temporal Score: 6.5
CVSS v3.1 Vector: **CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:N/I:N/A:H/E:U/RL:O/RC:C**

CVSS v4.0 Score: 8.7
CVSS v4.0 Vector: **CVSS:4.0/AV:N/AC:L/AT:N/PR:N/UI:N/VC:N/VI:N/VA:H/SC:N/SI:N/SA:N**

CWE

CWE-770: Allocation of Resources Without Limits or Throttling

CVE

NVD Summary Link: <https://nvd.nist.gov/vuln/detail/cve-2025-11482>

Mitigating factors

The optional OPC-UA server is not activated by default. The OPC-UA server shall only be activated, if required.

¹ Common Vulnerability Scoring System (CVSS), Forum of Incident Response and Security Teams, Inc., <https://www.first.org/cvss/>.

² For the CVSS v3.1 scoring only the CVSS Base Score and the Temporal Score (if information is available) are considered in this advisory. The CVSS Environmental Score, which can affect the vulnerability severity, is not provided in this advisory since it reflects the potential impact of a vulnerability within the end-user organizations' computing environment; end-user organizations are therefore recommended to analyze their situation and specify the Environmental Score.

³ For the CVSS v4.0 scoring only the CVSS Base Metrics and the CVSS Supplemental Metrics (if information is available) are considered in this advisory. The CVSS Environmental and Threat Metrics, which can affect the vulnerability severity, are not provided in this advisory since they reflect the potential impact of a vulnerability within the end-user organizations' computing environment and over time depending on the vulnerability exploit maturity. Therefore, end-user organizations are recommended to analyze their situation and specify the Environmental and Threat Metrics.

⁴ Common Weakness Enumeration (CWE), The MITRE Corporation, <https://cwe.mitre.org/>.

PPT30 products are intended to operate at Levels 1 and 2 of the [ABB ICS Cyber Security Reference Architecture](#). To restrict access to the OPC-UA server exclusively to trusted IP addresses, configure the South Firewall and/or the Control Network Firewall accordingly, and properly segment the network where the PPT30 operates. Additionally, ensure that the physical network interfaces assigned to the same logical network as the PPT30 are accessible only to authorized personnel.

Refer to section “General security recommendations” for further advise on how to keep your system secure.

Frequently asked questions

What causes the vulnerability?

The vulnerability is caused by insufficient handling of resources by the OPC-UA Server used by the PPT30 Operating System.

What is PPT 30 Operating System

The PPT30 Operating System is the firmware required to use the B&R PPT30 hardware products.

What might an attacker use the vulnerability to do?

An attacker who successfully exploited this vulnerability could cause other users are no longer able to connect to the OPC-UA server on impacted devices.

How could an attacker exploit the vulnerability?

An attacker could exploit the vulnerability by sending messages to an affected system node. This would require that the attacker has access to the system network, by connecting to the network either directly or through a wrongly configured or penetrated firewall, or that he installs malicious software on a system node or otherwise infects the network with malicious software. Recommended practices help mitigate such attacks, see section Mitigating Factors above.

Could the vulnerability be exploited remotely?

Yes, an attacker who has network access to an affected system node could exploit this vulnerability. Recommended practices include that process control systems are physically protected, have no direct connections to the Internet, and are separated from other networks by means of a firewall system that has a minimal number of ports exposed.

When this security advisory was issued, had this vulnerability been publicly disclosed?

No, B&R discovered the vulnerabilities through its own security analysis.

When this security advisory was issued, had B&R received any reports that this vulnerability was being exploited?

No, B&R had not received any information indicating that this vulnerability had been exploited when this security advisory was originally issued

General security recommendations

For any installation of software-related B&R products we strongly recommend the following (non-exhaustive) list of cyber security practices:

- Isolate special purpose networks (e.g. for automation systems) and remote devices behind firewalls and separate them from any general-purpose network (e.g. office or home networks).
- Install physical controls so no unauthorized personnel can access your devices, components, peripheral equipment, and networks.
- Never connect programming software or computers containing programming software to any network other than the network for the devices that it is intended for.
- Scan all data imported into your environment before use to detect potential malware infections.
- Minimize network exposure for all applications and endpoints to ensure that they are not accessible from the Internet unless they are designed for such exposure and the intended use requires such.
- Ensure all nodes are always up to date in terms of installed software, operating system, and firmware patches as well as anti-virus and firewall.
- When remote access is required, use secure methods, such as Virtual Private Networks (VPNs). Recognize that VPNs may have vulnerabilities and should be updated to the most current version available. Also, understand that VPNs are only as secure as the connected devices.

More information on recommended practices can be found in the following documents:

[Defense in Depth for B&R products](#)

Support

For additional instructions and support please contact your local B&R service organization. For contact information, see <https://www.br-automation.com/en/about-us/locations/>.

Information about ABB's cyber security program and capabilities can be found at www.abb.com/cyber-security.

Version history

Rev. Ind.	Page (p) Chapter (c)	Change description	Version. date
1.0	all	Initial version	2026-05-26