مجلس الأمن السيبراني
CYBER SECURITY COUNCIL
United Arab Emirates

Critical Sandbox Escape Vulnerability in vm2

Tracking #:432318317

Date:27-01-2026

EXECUTIVE SUMMARY:

The UAE Cyber Security Council has observed a critical vulnerability in vm2 that could allow an attacker to bypass sandbox restrictions and execute arbitrary code on the host system.

TECHNICAL DETAILS:

A critical security vulnerability exists in vm2, a widely used Node.js sandbox library designed to safely execute untrusted JavaScript code. The vulnerability, tracked as CVE-2026-22709, has a CVSS score of 9.8 (Critical) and allows an attacker to bypass sandbox restrictions and execute arbitrary code on the host system.

Vulnerability Details

- **CVE-2026-22709**
- CVSS score of 9.8 (Critical)
- The vulnerability arises from incomplete sanitization of JavaScript Promise callbacks in the vm2 sandbox. While local Promise callbacks are sanitized, callbacks on the global Promise object are not. An attacker can exploit this behavior via an async function to access unsanitized Promise methods, traverse the prototype chain, and execute arbitrary code outside the sandbox, resulting in a full sandbox escape and remote code execution.
- Successful exploitation of this vulnerability could allow an attacker to escape the vm2 sandbox, execute arbitrary system commands with the privileges of the host application, compromise the affected system, and access or modify sensitive data, potentially enabling further lateral movement within the environment.

Affected Products

- vm2 versions 3.10.0 and earlier

Fixed Versions

- vm2 3.10.2 and later

RECOMMENDATIONS:

The UAE Cyber Security Council recommends updating the affected versions to the fixed or latest versions released by Vendor.

Kindly circulate this information to your subsidiaries and partners as well as share with us any relevant information and findings.

The UAE Cyber Security Council extends its appreciation for the continued collaboration.

REFERENCES:

- https://www.tenable.com/cve/CVE-2026-22709