مجلس الأمن السيبراني
CYBER SECURITY COUNCIL
United Arab Emirates

High-Severity Vulnerability in GitHub Enterprise
Tracking #:432316856
Date:11-02-2025

TLP: WHITE

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EXECUTIVE SUMMARY:

The UAE Cyber Security Council has observed a high-severity vulnerability in GitHub Enterprise, which could be exploited to gain unauthorized access to affected systems.

TECHNICAL DETAILS:

Vulnerability Details:
- **CVE-2025-23369**
- CVSS v4 score 7.6 High
- A security vulnerability exists in GitHub Enterprise Server (GHES), allowing attackers to bypass Security Assertion Markup Language (SAML) authentication. This flaw enables unauthorized access to accounts, including those with administrative privileges. The vulnerability stems from quirks in the libxml2 library used for parsing SAML responses, which attackers can exploit to forge or manipulate authentication responses.
- The vulnerability stems from improper handling of XML entities within SAML responses. By crafting a malicious SAML response that manipulates XML entity references, attackers can bypass signature verification mechanisms and inject arbitrary assertions.
- Successful exploitation of CVE-2025-23369 allows attackers to:
    o Gain unauthorized access to GitHub Enterprise accounts
    o Compromise private repositories
    o Escalate privileges within an organization's GitHub environment

Affected Versions:
- GitHub Enterprise Server prior to 3.12.14, 3.13.10, 3.14.7, 3.15.2, and 3.16.0.

Fixed Versions:
- GitHub Enterprise Server Versions 3.12.14, 3.13.10, 3.14.7, 3.15.2, and 3.16.0 or later

RECOMMENDATIONS:

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

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://nvd.nist.gov/vuln/detail/CVE-2025-23369