AMD µPROF Security Notice - AMD-SB-9001

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Bulletin ID: AMD-SB-9001 Potential Impact: Varies by CVE, see descriptions below Severity: Varies by CVE, see descriptions below

Summary

AMD µProf ("MICRO-prof") is a software profiling analysis tool for x86 applications running on Windows®, Linux® and FreeBSD® operating systems and is designed to provide event information unique to the AMD "Zen" microarchitecture-based platforms and AMD Instinct™ MI Series accelerators. AMD µProf can help enable developers to better understand application performance and evaluate potential improvements.

Four potential vulnerabilities have been reported in AMD µProf.

CVE Details

Refer to Glossary for explanation of terms

CVE	Severity	CVE Description
CVE-2023-31348	7.3 (High) AV:L/AC:L/PR:L/UI:R/S:U/C:H/I:H/A:H	A DLL hijacking vulnerability in AMD µProf could allow an attacker to achieve privilege escalation, potentially resulting in arbitrary code execution.
CVE-2023-31349	7.3 (High) AV:L/AC:L/PR:L/UI:R/S:U/C:H/I:H/A:H	Incorrect default permissions in the AMD µProf installation directory could allow an attacker to achieve privilege escalation, potentially resulting in arbitrary code execution.
CVE-2023-31341	5.5 (Medium) AV:L/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:H	Insufficient validation of the Input Output Control (IOCTL) input buffer in AMD µProf may allow an authenticated attacker to cause an out-of-bounds write, potentially causing a Windows® OS crash, resulting in denial of service.
CVE-2023-31366	3.3 (Low) AV:L/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:L	Improper input validation in AMD µProf could allow an attacker to perform a write to an invalid address, potentially resulting in denial of service.

Affected Products

AMD µProf

Mitigation

AMD recommends updating µProf to the following versions:

OS	Version
Windows®	AMDµProf-4.2.845.exe
Linux®	AMDµProf_Linux_x64_4.2.850.tar.bz2

FreeBSD®	AMDµProf_FreeBSD_x64_4.2.816.tar.bz2
Linux®	amdµprof_4.2-850_amd64.deb
Linux®	amdµprof-4.2-850.x86_64.rpm

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권율(a.k.a Sechack), 강병현(a.k.a rolling), 김승찬(a.k.a zoodasa), 김종성(a.k.a nevul37), 박상준(a.k.a sangjun), and 박윤진(a.k.a r136a1x27) of 우리 오늘부터 0-day? : CVE-2023-31366, CVE-2023-31341

Mohamed Amine Saidani (Pwni): CVE-2023-31348, CVE-2023-31349

Revisions

Revision Date	Description
2024-08-13	Initial publication

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