



# CVE-2022-21166

[MITRE](#)[NVD](#)[CVE.ORG](#)[Print: PDF](#)

## Summary

<b>CVE</b>	CVE-2022-21166
<b>State</b>	PUBLIC
<b>Assigner</b>	secure@intel.com
<b>Source Priority</b>	CVE Program / NVD first with legacy fallback
<b>Published</b>	2022-06-15 21:15:00 UTC
<b>Updated</b>	2023-11-07 03:43:00 UTC
<b>Description</b>	Incomplete cleanup in specific special register write operations for some Intel(R) Processors may allow an authenticated us

## Risk And Classification

**Problem Types:** CWE-459

## NVD Known Affected Configurations (CPE 2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Operating System	<a href="#">Debian</a>	<a href="#">Debian Linux</a>	10.0	All	All	All
Operating System	<a href="#">Debian</a>	<a href="#">Debian Linux</a>	11.0	All	All	All
Operating System	<a href="#">Debian</a>	<a href="#">Debian Linux</a>	9.0	All	All	All
Operating System	<a href="#">Fedoraproject</a>	<a href="#">Fedora</a>	35	All	All	All
Operating System	<a href="#">Fedoraproject</a>	<a href="#">Fedora</a>	36	All	All	All
Application	<a href="#">Intel</a>	<a href="#">Sgx Dcap</a>	All	All	All	All
Application	<a href="#">Intel</a>	<a href="#">Sgx Dcap</a>	All	All	All	All
Application	<a href="#">Intel</a>	<a href="#">Sgx Psw</a>	All	All	All	All
Application	<a href="#">Intel</a>	<a href="#">Sgx Psw</a>	All	All	All	All
Application	<a href="#">Intel</a>	<a href="#">Sgx Sdk</a>	All	All	All	All
Application	<a href="#">Intel</a>	<a href="#">Sgx Sdk</a>	All	All	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	-	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	beta	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_1	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_1a	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_1b	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_1c	All	All

Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_1d	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_2	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_2a	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_2c	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_2d	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_3c	All	All
Operating System	<a href="#">Vmware</a>	<a href="#">Esxi</a>	7.0	update_3d	All	All
Operating System	<a href="#">Xen</a>	<a href="#">Xen</a>	All	All	All	All

## References

### Reference

[SECURITY] Fedora 36 Update: xen-4.16.1-4.fc36 - package-announce - Fedora Mailing-Lists

Debian -- Security Information -- DSA-5178-1 intel-microcode

oss-security - Xen Security Advisory 404 v2 (CVE-2022-21123,CVE-2022-21125,CVE-2022-21166) - x86: MMIO Stale Data vulnerabilities

Debian -- Security Information -- DSA-5173-1 linux

INTEL-SA-00615

[SECURITY] Fedora 35 Update: xen-4.15.3-2.fc35 - package-announce - Fedora Mailing-Lists

[SECURITY] Fedora 35 Update: kernel-5.18.5-100.fc35 - package-announce - Fedora Mailing-Lists

Xen: Multiple Vulnerabilities (GLSA 202208-23) — Gentoo security

Intel SA-00615 Intel Processor Vulnerabilities in NetApp Products | NetApp Product Security

[SECURITY] Fedora 35 Update: xen-4.15.3-2.fc35 - package-announce - Fedora Mailing-Lists

Debian -- Security Information -- DSA-5184-1 xen

[SECURITY] Fedora 35 Update: kernel-5.18.5-100.fc35 - package-announce - Fedora Mailing-Lists

[SECURITY] [DLA 3065-1] linux security update

[SECURITY] Fedora 36 Update: kernel-5.18.5-200.fc36 - package-announce - Fedora Mailing-Lists

[SECURITY] Fedora 36 Update: xen-4.16.1-4.fc36 - package-announce - Fedora Mailing-Lists

[SECURITY] Fedora 36 Update: kernel-5.18.5-200.fc36 - package-announce - Fedora Mailing-Lists

CVE Program record

NVD vulnerability detail

No vendor comments have been submitted for this CVE.

## Legacy QID Mappings

[159891](#) Oracle Enterprise Linux Security Update for unbreakable enterprise kernel (ELSA-2022-9481)

[159892](#) Oracle Enterprise Linux Security Update for unbreakable enterprise kernel-container (ELSA-2022-9482)

<a href="#">159893</a> Oracle Enterprise Linux Security Update for unbreakable enterprise kernel-container (ELSA-2022-9486)
<a href="#">159894</a> Oracle Enterprise Linux Security Update for microcode_ctl (ELSA-2022-9485)
<a href="#">159897</a> Oracle Enterprise Linux Security Update for unbreakable enterprise kernel (ELSA-2022-9483)
<a href="#">159898</a> Oracle Enterprise Linux Security Update for microcode_ctl (ELSA-2022-9484)
<a href="#">159912</a> Oracle Enterprise Linux Security Update for microcode_ctl (ELSA-2022-9507)
<a href="#">159914</a> Oracle Enterprise Linux Security Update for microcode_ctl (ELSA-2022-9508)
<a href="#">160003</a> Oracle Enterprise Linux Security Update for microcode_ctl (ELSA-2022-9670)
<a href="#">160041</a> Oracle Enterprise Linux Security Update for kernel (ELSA-2022-5937)
<a href="#">160087</a> Oracle Enterprise Linux Security Update for kernel (ELSA-2022-6460)
<a href="#">160270</a> Oracle Enterprise Linux Security Update for kernel (ELSA-2022-8267)
<a href="#">180282</a> Debian Security Update for linux (DLA 3065-1)
<a href="#">180605</a> Debian Security Update for linux (DSA 5173-1)
<a href="#">180814</a> Debian Security Update for intel-microcode (DSA 5178-1)
<a href="#">180875</a> Debian Security Update for linux (CVE-2022-21166)
<a href="#">180893</a> Debian Security Update for xen (DSA 5184-1)
<a href="#">198835</a> Ubuntu Security Notification for Linux kernel Vulnerabilities (USN-5485-1)
<a href="#">198836</a> Ubuntu Security Notification for Intel Microcode Vulnerabilities (USN-5486-1)
<a href="#">198846</a> Ubuntu Security Notification for Linux kernel (OEM) Vulnerabilities (USN-5485-2)
<a href="#">198868</a> Ubuntu Security Notification for Linux kernel (OEM) Vulnerabilities (USN-5529-1)
<a href="#">216291</a> VMware ESXi 6.5 Patch Release ESXi670-202206101-SG Missing (VMSA-2022-0016)
<a href="#">216292</a> VMware ESXi 6.7 Patch Release ESXi670-202206101-SG Missing (VMSA-2022-0016)
<a href="#">216293</a> VMware ESXi 7.0 Patch Release ESXi70U3e-19898904 Missing (VMSA-2022-0016)
<a href="#">240597</a> Red Hat Update for kernel (RHSA-2022:5937)
<a href="#">240598</a> Red Hat Update for kernel-rt (RHSA-2022:5939)
<a href="#">240662</a> Red Hat Update for kernel-rt (RHSA-2022:6437)
<a href="#">240664</a> Red Hat Update for kernel security (RHSA-2022:6460)
<a href="#">240734</a> Red Hat Update for kernel-rt (RHSA-2022:6991)
<a href="#">240738</a> Red Hat Update for kernel security (RHSA-2022:6983)

<a href="#">240799</a> Red Hat Update for kernel-rt (RHSA-2022:7280)
<a href="#">240869</a> Red Hat Update for kernel-rt (RHSA-2022:7933)
<a href="#">240904</a> Red Hat Update for kernel security (RHSA-2022:8267)
<a href="#">241008</a> Red Hat Update for kernel (RHSA-2022:8973)
<a href="#">241009</a> Red Hat Update for kernel-rt (RHSA-2022:8974)
<a href="#">257189</a> CentOS Security Update for kernel (CESA-2022:5937)
<a href="#">282826</a> Fedora Security Update for kernel (FEDORA-2022-391e24517d)
<a href="#">282837</a> Fedora Security Update for kernel (FEDORA-2022-177a008b98)
<a href="#">282884</a> Fedora Security Update for xen (FEDORA-2022-925fc688c1)
<a href="#">282969</a> Fedora Security Update for xen (FEDORA-2022-2c9f8224f8)
<a href="#">353974</a> Amazon Linux Security Advisory for microcode_ctl : ALAS-2022-1606
<a href="#">354468</a> Amazon Linux Security Advisory for kernel : ALAS2022-2022-185
<a href="#">354542</a> Amazon Linux Security Advisory for kernel : ALAS-2022-185
<a href="#">355199</a> Amazon Linux Security Advisory for kernel : ALAS2023-2023-070
<a href="#">376747</a> F5 BIG-IP Application Security Manager (ASM), Local Traffic Manager (LTM), Access Policy Manager (APM) Intel processors MMIO stale data Vulnerability (K08152433)
<a href="#">377117</a> Alibaba Cloud Linux Security Update for cloud-kernel (ALINUX3-SA-2022:0158)
<a href="#">377772</a> Citrix XenServer Security Updates (CTX460064)
<a href="#">377871</a> Alibaba Cloud Linux Security Update for cloud-kernel (ALINUX2-SA-2023:0001)
<a href="#">390266</a> Oracle Managed Virtualization (VM) Server for x86 Security Update for xen (OVMSA-2022-0023)
<a href="#">501525</a> Alpine Linux Security Update for xen
<a href="#">501803</a> Alpine Linux Security Update for xen
<a href="#">502244</a> Alpine Linux Security Update for xen
<a href="#">502421</a> Alpine Linux Security Update for xen
<a href="#">502813</a> Alpine Linux Security Update for xen
<a href="#">672114</a> EulerOS Security Update for kernel (EulerOS-SA-2022-2292)
<a href="#">710600</a> Gentoo Linux Xen Multiple Vulnerabilities (GLSA 202208-23)
<a href="#">752228</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2078-1)
<a href="#">752231</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2082-1)

<a href="#">752234</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2080-1)
<a href="#">752237</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2083-1)
<a href="#">752240</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2103-1)
<a href="#">752242</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2104-1)
<a href="#">752250</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2111-1)
<a href="#">752254</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2116-1)
<a href="#">752370</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2520-1)
<a href="#">752393</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2557-1)
<a href="#">752395</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2560-1)
<a href="#">752399</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2601-1)
<a href="#">752400</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2600-1)
<a href="#">752405</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2599-1)
<a href="#">752410</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2597-1)
<a href="#">752411</a> SUSE Enterprise Linux Security Update for xen (SUSE-SU-2022:2591-1)
<a href="#">753148</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2615-1)
<a href="#">753296</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2177-1)
<a href="#">753368</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2022:2079-1)
<a href="#">753703</a> SUSE Enterprise Linux Security Update for the Linux Kernel (SUSE-SU-2023:0416-1)
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<a href="#">91920</a> Microsoft Azure Stack Hub Security Updates for June 2022
<a href="#">91989</a> Microsoft Windows Microcode Updates for Vulnerabilities in MMIO Not Installed
<a href="#">940665</a> AlmaLinux Security Update for kernel-rt (ALSA-2022:6437)
<a href="#">940667</a> AlmaLinux Security Update for kernel (ALSA-2022:6460)
<a href="#">940798</a> AlmaLinux Security Update for kernel (ALSA-2022:8267)
<a href="#">940843</a> AlmaLinux Security Update for kernel-rt (ALSA-2022:7933)
<a href="#">960206</a> Rocky Linux Security Update for kernel-rt (RLSA-2022:6437)

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