CVE-2016-3157

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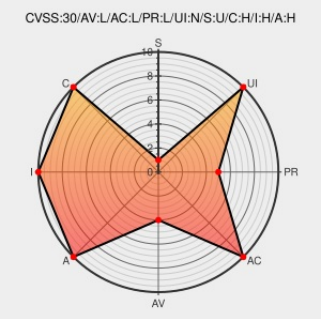
Source: Mitre | Source: NIST | CVE.ORG | Print: PDF



Certain versions of Ubuntu Linux from Canonical contain the following vulnerability:

The __switch_to function in arch/x86/kernel/process_64.c in the Linux kernel does not properly context-switch IOPL on 64-bit PV Xen guests, which allows local guest OS users to gain privileges, cause a denial of service (guest OS crash), or obtain sensitive information by leveraging I/O port access.

CVE-2016-3157 has been assigned by cve@mitre.org to track the vulnerability - currently rated as HIGH severity.

CVSS3 Score: 7.8 - HIGH

Attack Vector	Attack Complexity	Privileges Required	User Interaction
LOCAL	LOW	LOW	NONE
Scope	**Confidentiality Impact**	**Integrity Impact**	**Availability Impact**
UNCHANGED	HIGH	HIGH	HIGH

CVSS2 Score: 7.2 - HIGH

Access Vector	Access Complexity	Authentication
LOCAL	LOW	NONE
Confidentiality Impact	**Integrity Impact**	**Availability Impact**
COMPLETE	COMPLETE	COMPLETE

CVE References

Description	Tags	Link
USN-2969-1: Linux kernel (Utopic HWE) vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2969-1
Xen I/O Port Access Missing	www.securitytracker.com	SECTRACK 1035308

Xen I/O Port Access Missing PHYSDEVOP_set_iopl Hypercall Lets Local Users on a Guest System Gain Elevated Privileges on the Guest System - SecurityTracker	www.securitytracker.com text/html	SECTRACK 1035600
USN-2971-2: Linux kernel (Wily HWE) vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2971-2
USN-2968-1: Linux kernel vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2968-1
Oracle Linux Bulletin - April 2016	www.oracle.com text/html	CONFIRM www.oracle.com/technetwork/topics/security/linuxbulletinapr2016-2952096.html
XSA-171 - Xen Security Advisories	Patch Vendor Advisory xenbits.xen.org text/html	CONFIRM xenbits.xen.org/xsa/advisory-171.html
USN-2970-1: Linux kernel (Vivid HWE) vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2970-1
USN-2968-2: Linux kernel (Trusty HWE) vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2968-2
Debian -- Security Information -- DSA-3607-1 linux	www.debian.org Depreciated Link text/html	DEBIAN DSA-3607
USN-2996-1: Linux kernel vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2996-1
USN-2971-1: Linux kernel vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2971-1
Linux Kernel Xen PV Guest CVE-2016-3157 Local Privilege Escalation Vulnerability	cve.report (archive) text/html	BID 84594
USN-2997-1: Linux kernel (OMAP4) vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2997-1
USN-2971-3: Linux kernel (Raspberry Pi 2) vulnerabilities | Ubuntu	www.ubuntu.com text/html	UBUNTU USN-2971-3

There are currently no QIDs associated with this CVE

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Operating System	Canonical	Ubuntu Linux	12.04	All	All	All
Operating System	Canonical	Ubuntu Linux	12.04	All	All	All
Operating System	Xen	Xen	4.0.0	All	All	All

Operating System	Xen	Xen	4.0.0	All	All	All

cpe:2.3:o:canonical:ubuntu_linux:12.04:*:*:*:lts:*:*:*:

cpe:2.3:o:canonical:ubuntu_linux:12.04:*:*:*:lts:*:*:*:

cpe:2.3:o:xen:xen:4.0.0:*:*:*:*:*:*:*:

cpe:2.3:o:xen:xen:4.0.0:*:*:*:*:*:*:*:

No vendor comments have been submitted for this CVE

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