CVE-2010-4258

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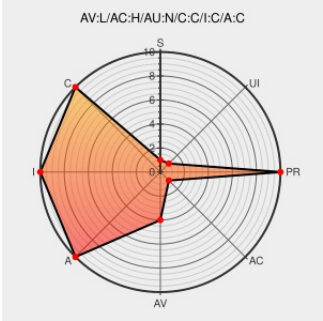
CVE-2010-4258

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



Certain versions of Fedora from Fedoraproject contain the following vulnerability:

The do_exit function in kernel/exit.c in the Linux kernel before 2.6.36.2 does not properly handle a KERNEL_DS get_fs value, which allows local users to bypass intended access_ok restrictions, overwrite arbitrary kernel memory locations, and gain privileges by leveraging a (1) BUG, (2) NULL pointer dereference, or (3) page fault, as demonstrated by vectors involving the clear_child_tid feature and the splice system call.

CVE-2010-4258 has been assigned by secalert@redhat.com to track the vulnerability

CVSS2 Score: 6.2 - MEDIUM

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

CVE References

Description	Tags	Link
SUSE update for kernel - Advisories - Community	Third Party Advisory, web.archive.org, text/html	SECUNIA 42801
oss-security - kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List, Third Party Advisory, openwall.com, text/html	MLIST [oss-security] 20101202 kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses
[security-announce] SUSE Security Announcement: Realtime Linux Kernel (S	Mailing List, Third Party Advisory, lists.opensuse.org, text/html	SUSE SUSE-SA:2011:007

Linux Kernel (S	text/html	
oss-security - Re: CVE request: kernel: failure to revert address limit override in OOPS error path	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101202 Re: CVE request: kernel: failure to revert address limit override in OOPS error path
SUSE update for kernel - Advisories - Community	Third Party Advisory web.archive.org text/html	SECUNIA 43291
kernel/git/torvalds/linux.git - Linux kernel source tree	web.archive.org text/html Inactive Link Not Archived	MISC git.kernel.org/?p=linux/kernel/git/torvalds/linux-2.6.git%3Ba=commit%3Bh=33dd94ae1ccbfb7bf0fb6c692bc3d1c4269e6177
oss-security - Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101209 Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses
Webmail : Solution de messagerie professionnelle - OVHcloud- OVH	Third Party Advisory www.vupen.com text/html	VUPEN ADV-2011-0375
oss-security - CVE request: kernel: failure to revert address limit override in OOPS error path	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101202 CVE request: kernel: failure to revert address limit override in OOPS error path
[security-announce] SUSE Security Announcement: Linux kernel (SUSE-SA:20	Mailing List Third Party Advisory lists.opensuse.org text/html	SUSE SUSE-SA:2011:002
[security-announce] SUSE Security Announcement: Linux kernel (SUSE-SA:20	Mailing List Third Party Advisory lists.opensuse.org text/html	SUSE SUSE-SA:2011:005
Webmail : Solution de messagerie professionnelle - OVHcloud- OVH	Third Party Advisory www.vupen.com text/html	VUPEN ADV-2011-0012
404: File not found	Broken Link www.kernel.org text/plain Inactive Link Not Archived	CONFIRM www.kernel.org/pub/linux/kernel/v2.6/ChangeLog-2.6.36.2
SUSE update for kernel - Secunia.com	Third Party Advisory web.archive.org text/html	SECUNIA 43056
oss-security - Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101208 Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses
oss-security - Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101208 Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses

NEOHAPSIS - Peace of Mind Through Integrity and Insight	Broken Link archives.neohapsis.com text/x-c Inactive Link Not Archived	FULLDISC 20101207 Linux kernel exploit
Webmail - OVH	Third Party Advisory www.vupen.com text/html	VUPEN ADV-2011-0213
Bug 659567 – CVE-2010-4258 kernel: failure to revert address limit override in OOPS error path	Issue Tracking Third Party Advisory bugzilla.redhat.com text/html	CONFIRM bugzilla.redhat.com/show_bug.cgi?id=659567
SUSE update for kernel - Advisories - Community	Third Party Advisory web.archive.org text/html	SECUNIA 42778
mandriva.com	Third Party Advisory www.mandriva.com text/html	MANDRIVA MDVSA-2011:029
Sign in - Google Accounts	Third Party Advisory code.google.com text/html	CONFIRM code.google.com/p/chromium-os/issues/detail?id=10234
LKML: Andrew Morton: Re: [PATCH v2] do_exit(): Make sure we run with get_fs() == USER_DS.	Mailing List Patch Third Party Advisory lkml.org text/xml	MLIST [linux-kernel] 20101201 Re: [PATCH v2] do_exit(): Make sure we run with get_fs() == USER_DS.
[security-announce] SUSE Security Announcement: Linux kernel (SUSE-SA:20	Mailing List Third Party Advisory lists.opensuse.org text/html	SUSE SUSE-SA:2011:001
Webmail : Solution de messagerie professionnelle - OVHcloud- OVH	Third Party Advisory www.vupen.com text/html	VUPEN ADV-2010-3321
Chrome Releases: Chrome OS Beta Channel Update	Third Party Advisory googlechromereleases.blogspot.com text/html	CONFIRM googlechromereleases.blogspot.com/2011/01/chrome-os-beta-channel-update.html
oss-security - Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101202 Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses
Fedora update for kernel - Advisories - Community	Third Party Advisory web.archive.org text/html	SECUNIA 42745
[SECURITY] Fedora 13 Update: kernel-2.6.34.7-66.fc13	Third Party Advisory lists.fedoraproject.org text/html	FEDORA FEDORA-2010-18983
[security-announce] SUSE Security Announcement: Linux kernel (SUSE-SA:20	Mailing List Third Party Advisory lists.opensuse.org text/html	SUSE SUSE-SA:2011:004
Webmail : Solution de	Third Party Advisory	VUPEN ADV-2011-0124

Webmail : Solution de messagerie professionnelle - OVHcloud- OVH	Third Party Advisory www.vupen.com text/html	VUPEN ADV-2011-0124
Made of Bugs » CVE-2010-4258: Turning denial-of-service into privilege escalation	Third Party Advisory blog.nelhage.com text/html	MISC blog.nelhage.com/2010/12/cve-2010-4258-from-dos-to-privesc/
SUSE update for kernel - Advisories - Community	Third Party Advisory web.archive.org text/html	SECUNIA 42932
oss-security - Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List Third Party Advisory openwall.com text/html	MLIST [oss-security] 20101208 Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses
Webmail : Solution de messagerie professionnelle - OVHcloud- OVH	Third Party Advisory www.vupen.com text/html	VUPEN ADV-2011-0298
oss-security - Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses	Mailing List Third Party Advisory openwall.com text/x-diff	MLIST [oss-security] 20101209 Re: kernel: Dangerous interaction between clear_child_tid, set_fs(), and kernel oopses
'[PATCH v2] do_exit(): Make sure we run with get_fs() == USER_DS.' - MARC	Patch Third Party Advisory marc.info text/x-diff	MLIST [linux-kernel] 20101201 [PATCH v2] do_exit(): Make sure we run with get_fs() == USER_DS.
[security-announce] SUSE Security Announcement: Linux kernel (SUSE-SA:20	Mailing List Third Party Advisory lists.opensuse.org text/html	SUSE SUSE-SA:2011:008

There are currently no QIDs associated with this CVE

Exploit/POC from Github

Exploit based on a faulty clone(2) implementation in Linux < 2.6.36.2 that allows overwrite of arbitrary kernel word …

Known Affected Configurations (CPE V2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Operating System	Fedoraproject	Fedora	13	All	All	All
Operating	Fedoraproject	Fedora	13	All	All	All

Operating System	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Operating System	Linux	Linux Kernel	All	All	All	All
Operating System	Linux	Linux Kernel	All	All	All	All
Operating System	Opensuse	Opensuse	11.2	All	All	All
Operating System	Opensuse	Opensuse	11.3	All	All	All
Operating System	Opensuse	Opensuse	11.2	All	All	All
Operating System	Opensuse	Opensuse	11.3	All	All	All
Operating System	Suse	Linux Enterprise Desktop	10	sp3	All	All
Operating System	Suse	Linux Enterprise Desktop	11	sp1	All	All
Operating System	Suse	Linux Enterprise Desktop	10	sp3	All	All
Operating System	Suse	Linux Enterprise Desktop	11	sp1	All	All
Operating System	Suse	Linux Enterprise Real Time Extension	11	sp1	All	All
Operating System	Suse	Linux Enterprise Real Time Extension	11	sp1	All	All
Operating System	Suse	Linux Enterprise Server	10	sp3	All	All
Operating System	Suse	Linux Enterprise Server	11	sp1	All	All
Operating System	Suse	Linux Enterprise Server	9	All	All	All
Operating System	Suse	Linux Enterprise Server	10	sp3	All	All
Operating System	Suse	Linux Enterprise Server	11	sp1	All	All
Operating System	Suse	Linux Enterprise Server	9	All	All	All
Operating System	Suse	Linux Enterprise Software Development Kit	10	sp3	All	All
Operating System	Suse	Linux Enterprise Software Development Kit	10	sp3	All	All

cpe:2.3:o:fedoraproject:fedora:13:*:*:*:*:*:*:*:

cpe:2.3:o:fedoraproject:fedora:13:*:*:*:*:*:*:*:

cpe:2.3:o:linux:linux_kernel:*:*:*:*:*:*:*:*:

cpe:2.3:o:linux:linux_kernel:*:*:*:*:*:*:*:*:

cpe:2.3:o:opensuse:opensuse:11.2:*:*:*:*:*:*:*:

cpe:2.3:o:opensuse:opensuse:11.3:*:*:*:*:*:*:*:

cpe:2.3:o:opensuse:opensuse:11.2:*:*:*:*:*:*:*:

cpe:2.3:o:opensuse:opensuse:11.3:*:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_desktop:10:sp3:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_desktop:11:sp1:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_desktop:10:sp3:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_desktop:11:sp1:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_real_time_extension:11:sp1:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_real_time_extension:11:sp1:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_server:10:sp3:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_server:11:sp1:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_server:9:*:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_server:10:sp3:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_server:11:sp1:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_server:9:*:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_software_development_kit:10:sp3:*:*:*:*:*:*:

cpe:2.3:o:suse:linux_enterprise_software_development_kit:10:sp3:*:*:*:*:*:*:

No vendor comments have been submitted for this CVE

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