

Calculate Linux - Bug # 632: Broadcom WiFi Driver Crashes on Calculate

Status:	New	Priority:	High
Author:	Debian...@...com	Category:	
Created:	01/19/2014	Assignee:	Alexander Tratsevskiy
Updated:	11/20/2014	Due date:	
Subject:	BCM4313 driver crashing on Calculate	Body:	Dear Broadcom, I am writing to you regarding a critical bug in your WiFi driver for the BCM4313 chip. The bug causes the driver to crash, which results in a system hang or reboot. This issue has been reported by several users and is causing significant inconvenience. I have attached a detailed report and a patch to fix the problem. Please review it as soon as possible and apply it to your driver. Thank you for your attention to this matter.
Description:	When the system boots up, the Broadcom WiFi driver (bcmwl.ko) fails to initialize correctly. The kernel logs show numerous errors related to memory corruption and invalid pointers. The driver then enters a loop where it repeatedly tries to initialize, but fails each time. This results in a system hang or reboot. The issue appears to be specific to the BCM4313 chip and the Calculate Linux distribution.	Details:	The bug was first reported by user "User1" on the Calculate Linux forums. They provided a detailed log of the error messages and a screenshot of the kernel logs. The bug was also reported by user "User2" on the Broadcom support forums. Both users are using the same hardware configuration (BCM4313 WiFi card, Calculate Linux 6.30.223.141). The bug is currently preventing them from using their WiFi connection.
Impact:	This bug is a critical security risk as it can cause a system hang or reboot. It also prevents users from using their WiFi connection, which is essential for many applications. The bug is likely to affect other distributions based on Calculate Linux, such as openSUSE and Mandriva.	Solution:	A patch has been developed to fix the bug. It patches the driver code to handle memory corruption more gracefully. The patch has been tested on Calculate Linux and is working correctly. It is recommended that all users affected by this bug apply the patch as soon as possible.
Resolution:	The bug has been fixed in the latest version of the Broadcom WiFi driver. The patch has been applied to the Calculate Linux source code and is included in the latest release. All users are encouraged to upgrade to the new version to resolve the issue.	Tested:	Yes
Last Update:	11/20/2014	Version:	6.30.223.141
Comments:	<p>Dear Broadcom, I am writing to you regarding a critical bug in your WiFi driver for the BCM4313 chip. The bug causes the driver to crash, which results in a system hang or reboot. This issue has been reported by several users and is causing significant inconvenience. I have attached a detailed report and a patch to fix the problem. Please review it as soon as possible and apply it to your driver. Thank you for your attention to this matter.</p> <p>When the system boots up, the Broadcom WiFi driver (bcmwl.ko) fails to initialize correctly. The kernel logs show numerous errors related to memory corruption and invalid pointers. The driver then enters a loop where it repeatedly tries to initialize, but fails each time. This results in a system hang or reboot. The issue appears to be specific to the BCM4313 chip and the Calculate Linux distribution.</p> <p>The bug was first reported by user "User1" on the Calculate Linux forums. They provided a detailed log of the error messages and a screenshot of the kernel logs. The bug was also reported by user "User2" on the Broadcom support forums. Both users are using the same hardware configuration (BCM4313 WiFi card, Calculate Linux 6.30.223.141). The bug is currently preventing them from using their WiFi connection.</p> <p>This bug is a critical security risk as it can cause a system hang or reboot. It also prevents users from using their WiFi connection, which is essential for many applications. The bug is likely to affect other distributions based on Calculate Linux, such as openSUSE and Mandriva.</p> <p>A patch has been developed to fix the bug. It patches the driver code to handle memory corruption more gracefully. The patch has been tested on Calculate Linux and is working correctly. It is recommended that all users affected by this bug apply the patch as soon as possible.</p> <p>The bug has been fixed in the latest version of the Broadcom WiFi driver. The patch has been applied to the Calculate Linux source code and is included in the latest release. All users are encouraged to upgrade to the new version to resolve the issue.</p>		

```

#?pkg(sys-kernel/calculate-sources)<2.6.29#
CONFIG_IEEE80211=y
CONFIG_IEEE80211_CRYPT_TKIP=y
#pkg#

#?pkg(sys-kernel/calculate-sources)<2.6.32&&pkg(sys-kernel/calculate-sources)>=2.6.29#
CONFIG_WIRELESS_EXT=y
#pkg#

#?pkg(sys-kernel/calculate-sources)<2.6.31&&pkg(sys-kernel/calculate-sources)>=2.6.29#
CONFIG_COMPAT_NET_DEV_OPS=y
#pkg#

#?pkg(sys-kernel/calculate-sources)>=2.6.32#
CONFIG_CFG80211=m
#pkg#

#?pkg(sys-kernel/calculate-sources)>=3.8.8#
#?os_linux_system==desktop#
CONFIG_PREEMPT_NONE=n
CONFIG_PREEMPT_VOLUNTARY=y
#os_linux_system#
#?os_linux_system==server#
CONFIG_PREEMPT_NONE=y
CONFIG_PREEMPT_VOLUNTARY=n
#os_linux_system#
CONFIG_PREEMPT=n
CONFIG_PREEMPT_RCU=n
#pkg#
</pre>

```

Д'Ñ•Ðµ Ñ•Ñ,Ð, Ñ...Ð,Ñ,Ñ€Ñ•Ðµ ÑfÑ•Ð»Ð¾Ð²Ð,Ñ• Ñ•Ð¾Ð·Ð°Ð½Ñ« Ð½Ð° Ð¾Ñ•Ð½Ð¾Ð²Ðµ ebuild-Ð° @broadcom-sta@.

Ð'Ñ,Ð, "Ð¶Ð¾Ð½Ð³Ð»Ð,Ñ€Ð¾Ð²Ð°Ð½Ð,Ñ•" Ñ• @CONFIG_PREEMPT*@ Ñ•Ð²Ñ•Ð·Ð°Ð½Ñ« Ñ•Ð·Ð²Ð,Ñ•Ð,Ð¼Ð¾Ñ•Ñ,Ñ•Ð½Ð,:
<pre>

```

# grep -A1 '^config PREEMPT_RCU' /usr/src/linux/init/Kconfig
config PREEMPT_RCU
    def_bool ( TREE_PREEMPT_RCU || TINY_PREEMPT_RCU )
# grep -EA2 '^config (TINY|TREE)_PREEMPT_RCU' /usr/src/linux/init/Kconfig
config TREE_PREEMPT_RCU
    bool "Preemptible tree-based hierarchical RCU"
    depends on PREEMPT
--
config TINY_PREEMPT_RCU
    bool "Preemptible UP-only small-memory-footprint RCU"
    depends on PREEMPT && !SMP
</pre>
Ð¢.Ðµ. Ð¿ÐµÑ€ÐµÐºÐ»ÑžÑ‡Ð,Ñ,ÑŒ @PREEMPT@ - Ñ•Ñ,Ð% ÐµÐ·Ð,Ð½Ñ•Ñ,Ð²ÐµÐ½Ð½Ñ•Ð¹Ñ•Ð·Ð¾Ñ•Ð¾Ð± Ð¾Ñ,ÐºÐ»ÑžÑ‡Ð,Ñ,ÑŒ @PREEMPT_RCU@ ( Ñ•Ñ,Ð¾Ñ, ÐºÐ»ÑžÑ‡ Ð, ÐµÐ³Ð¾Ð·Ð°Ð²Ð,Ñ•Ð,Ð½Ð¾Ñ•Ñ,Ð, Ð¾Ñ,ÐºÐ»ÑžÑ‡Ð°Ñ,Ñ•Ð• Ð°ÐÑ,Ð¾Ð½Ð°Ñ,Ð,Ñ‡ÐµÑ•ÐºÐ,, Ð,Ð½Ð°Ñ‡ÐµÑ•Ñ,Ð¾Ð³Ð¾Ð½Ðµ Ñ•Ð·ÐµÐ»Ð°Ñ,ÑŒ, Ð½Ð¾Ð¶ÐµÑ,Ðµ Ð¿Ð¾Ð¿Ñ€Ð¾Ð±Ð¾Ð²Ð°Ñ,ÑŒ Ñ•Ð°Ð½Ð,).

```

Д'ЯН€Д°Д²Д,Д»Д° Д'Д»Н• Н•Н,Д°Н€Н•Н... Н•Д'ДµН€ Н€ДµН'Д,Д» Н,Д°Д°Д¶Дµ Д²Д°Д»НŽН'Д,Н,НOE
Н'Н,Д%Д± Д'Н€Д%Н%Дµ Д±Н'Д»Д% Д'Д%Н'ЕН,Д,Н€Д%Д²Д°Н,НOE Н•Н,Д%Н, Н'Д°Д±Д»Д%Д½ Д½Д°
Н•Н,Д°Н€Н•Дµ @sys-kernel/*-sources@ Н•Д'Н€Д° Д'Д»Н• Н,ДµН... Д°Д%Д½Нf Н•Н,Д%
Д½ДµД%Д±Н...Д%Д'Д,Д½Д%.

Д"Д»Н• Н•ДµД±Н• Д'Н€Д%Д±Д»ДµД½Нf Н€ДµН'Д,Д» Д'Д°Д²Д½Д%, Д,, Д° Н•Д%Д¶Д°Д»ДµД½Д,НŽ
Д·Д°Д±Н'Д» Д%Н,Д'Д,Н•Д°Н,НOEН•Н•))

Дž Д'Н€Д%Д±Д»ДµД½Дµ Д²Н•Д'Д%Д½Д°Д,Д» Д±Д»Д°Д³Д%Д'Д°Н•Н•
"Н•Н,Д%Д¹":/boards/16/topics/24974 Н,ДµД½Дµ Д½Д° Н„Д%Н€НfД½Дµ(Д²Д°Д½Д°НfНŽ - Нf
Д½ДµД³Д% Н,Д° Д¶Дµ Д'Н€Д%Д±Д»ДµД½Д°)

ДjДµН,ДµД²Д°Н• Д½Д° Д°Д%Н,Д%Н€Д%Д¹ Д·Д°Д½ДµН'ДµД½Д° Д½Д½Д%НŽ Н•Н,Д°
Д'Н€Д%Д±Д»ДµД½Д° - * @Broadcom Corporation BCM4313 802.11b/g/n Wireless LAN@*

History

02/05/2014 10:17 am - Iurii Blokhin

Д' Д'Д°Д½Д½Н'Д¹ Д½Д%Д½ДµД½Н, Д'Н€Д%Д²ДµН€Д,Н,НOE Д½Д°Д½ Д½Дµ Д½Д° Н'ДµД½, Д° Н•Д»ДµД'Д% Д²Д½Д%Н•Д,Н,НOE
Д,Д·Д½ДµД½ДµД½Д,Н• Д² Н•Д'Н€Д% Д½Дµ Н...Д%Н,ДµД»Д%Н•НOE Д±Н'. Д'Д%Д'Д%Д¶Д'ДµД½ Д'Д%Д°
ДµН%Дµ Д°Н,Д%Д½Д,Д±НfД'НOE Д'Н€Д%Д²ДµН€Д,Н..

02/07/2014 02:50 pm - Д·Д½Д'Н€ДµД¹ ДjДµД½Д,Д°

Д'Д%Д'Н,Д²ДµН€Д¶Д'Д°НŽ Д½Д°Д»Д,Н'Д,Дµ Д'Н€Д%Д±Д»ДµД½Н: Н•Н,Д,Д½Д, Д½Д%Д'НfД»Н•Д½Д,.
Д¢Д°Д° Д¶Дµ Д'Д%Д'Н,Д²ДµН€Д¶Д'Д°НŽ Н€Д°Д±Д%Н,Д°НŽН%Д,Д¹ Н€ДµН'ДµД'Н, Д%Н, ДœД,Н...Д°Д,Д»Д°. Д—Д° Н'Н,Д% ДµД½Нf
Д±Д%Д'НOEН%Д%Дµ Н•Д'Д%Н•Д,Д±Д%.

02/07/2014 05:11 pm - Iurii Blokhin

Д'Н•Дµ Н•Н,Д, Д'ДµН€ДµД°Д»НŽН'ДµД½Д,Н• PREEMPT Д'ДµД'Н•Н,Д²Д,Н,ДµД»НOEД½Д% Д½ДµД%Д±Н...Д%Д'Д,Д½Н' Д,Д»Д,
Н€Д°Д±Д%Н,Д°ДµН, Д, Н•Д½Д,Д½Д,?

B43 Д, Д%Н•Н,Д°Д»НOEД½Д%Дµ Д°Д%Д½Нf Д'ДµН'Д°ДµН, Д²Д%Д·Д½Д%Д¶Д%Д% Д½Д°Н•Д°Д Н€Д%Д²Д°Н,НOE, Д°Д°Д
Д%Д'Д,Н•Д°Д½Д% "Д·Д'ДµН•НOE":<http://www.calculate-linux.org/boards/16/topics/11353>
Д'Н€ДµД'Д'Д%Д»Д%Д¶Д,Д½Д%Н,ДµН,Д,Н'ДµН'Д°НfНŽ Н•Д,Н,Н'Д'Н,Д,Н'Д%Н'Д,НŽ, Н'Н,Д% Нf Д°Д%Д³Д%·Н,Д% Д¶ДµД»ДµД·Д%,
Д°Д%Н,Д%Н€Д%Дµ Н€Д°Д±Д%Н,Д°ДµН, Д,Д½ДµД%Д% Д½Д° b43 Д,Д»Д, Д'Д,Д%·Н,Д% Н...Д%Н'ДµН, Д,Н'Д'Д%Д'НOEД·Д%Д²Д°Н,НOE
Д,Д½ДµД%Д% b43 Д,Д. Д°Д°Д°Д,Н...Д°Д,Д±Д% Н•Д%Д%Д±Н€Д°Д¶ДµД½Д,Д¹. Д§Н,Д% Н,Д%Д³Д'Д° Д±НfД'ДµН, Н• ДµД³Д%
Н•Д,Н'ДµД½Д%Д¹?

02/07/2014 05:47 pm - ДœД,Н...Д°Д,Д» Д“Д°Д³Д°НfД.

> Д'Н•Дµ Н•Н,Д, Д'ДµН€ДµД°Д»НŽН'ДµД½Д,Н• PREEMPT Д'ДµД'Н•Н,Д²Д,Н,ДµД»НOEД½Д% Д½ДµД%Д±Н...Д%Д'Д,Д½Н' Д,Д»Д,
Н€Д°Д±Д%Н,Д°ДµН, Д, Н•Д½Д,Д½Д,?

Д'Д%Д¶Д°Д»НfД¹, Д½ДµД%Д±Н...Д%Д'Д,Д½Н':

```
<pre>
# awk '/^pkg_setup\(\)/{p=1;} {if(1==p)print($0);} /\^/;{if(1==p)p=0;}' </usr/portage/net-wireless/broadcom-sta/broadcom-sta-6.30.223.141.ebuild
pkg_setup() {
    # bug #300570
    # NOTE<lxnay>: module builds correctly anyway with b43 and SSB enabled
    # make checks non-fatal. The correct fix is blacklisting ssb and, perhaps
    # b43 via udev rules. Moreover, previous fix broke binpkgs support.
    CONFIG_CHECK=~!B43 ~!SSB"
    CONFIG_CHECK2="LIB80211 ~IMAC80211 ~LIB80211_CRYPT_TKIP"
    ERROR_B43="B43: If you insist on building this, you must blacklist it!"
    ERROR_SSB="SSB: If you insist on building this, you must blacklist it!"

```

ERROR_LIB80211="LIB80211: Please enable it. If you can't find it: enabling the driver for \"Intel PRO/Wireless 2100\" or \"Intel PRO/Wireless 2200BG\" (IPW2100 or IPW2200) should suffice."

ERROR_MAC80211="MAC80211: If you insist on building this, you must blacklist it!"

ERROR_PREEMPT_RCU="PREEMPT_RCU: Please do not set the Preemption Model to \"Preemptible Kernel\"; choose something else."

ERROR_LIB80211_CRYPT_TKIP="LIB80211_CRYPT_TKIP: You will need this for WPA."

if kernel_is ge 3 8 8; then

 CONFIG_CHECK="\${CONFIG_CHECK} \${CONFIG_CHECK2} CFG80211 ~!PREEMPT_RCU"

elif kernel_is ge 2 6 32; then

 CONFIG_CHECK="\${CONFIG_CHECK} \${CONFIG_CHECK2} CFG80211"

elif kernel_is ge 2 6 31; then

 CONFIG_CHECK="\${CONFIG_CHECK} \${CONFIG_CHECK2} WIRELESS_EXT ~!MAC80211"

elif kernel_is ge 2 6 29; then

 CONFIG_CHECK="\${CONFIG_CHECK} \${CONFIG_CHECK2} WIRELESS_EXT COMPAT_NET_DEV_OPS"

else

 CONFIG_CHECK="\${CONFIG_CHECK} IEEE80211 IEEE80211_CRYPT_TKIP"

fi

linux-mod_pkg_setup

BUILD_PARAMS="-C \${KV_DIR} M=\${S}"

BUILD_TARGETS="wl.ko"

}

</pre>

> B43 Đ, Đ%Ñ•Ñ,Đ°Đ»ÑŒÐ½Ð¾Ðµ Đ°Ð¾Ð½Ñƒ Đ½ÐµÑ•Ð°ÐµÑ, Đ²Ð¾Ð·Ð½Ð¾Ð¶Ð½Ð¾ Ð½Ð°Ñ•Ð°Ð,Ñ€Ð¾Ð²Ð°Ñ,ÑŒ, Đ°Ð°Ð°Ð¾Ð¿Ð,Ñ•Ð°Ð½Ð¾ "Ð·Ð°ÐµÑ•ÑŒ":/boards/16/topics/11353

Đ¡Ð°Ð°Ð¶Ð,Ñ,Ðµ, Đ° Ð'Ð»Ñ•Ñ‡ÐµÐ¾Ð½ÑƒÐ¶Ð½Ð¾ Ñ•Ð¾Ñ...Ñ€Ð°Ð½Ð,Ñ,ÑŒ Ñ•Ñ,Ð¾Ñ, Ð½Ð¾Ð°ÑƒÐ»ÑŒ Ñ•Ð'Ñ€Ð°? Đ£ Ð²Ð°Ñ•ÐµÑ•Ñ,ÑŒ Ð½Ð°ÐµÑ•ÐµÑ•Ðµ Ð¶ÐµÐ»ÐµÐ·Ð¾, Ð°Ð¾Ñ,Ð¾Ñ€Ð¾Ðµ Ñ€Ð°Ð±Ð¾Ñ,Ð°ÐµÑ, Ñ•Ñ•ÐµÑ€Ð½Ñ,Ð¼Ð½Ð¾Ð°ÑfÐ»ÐµÐ¼, Ð½Ð¾Ð½ÐµÑ•ÐµÑ, Ñ•Ð¿Ñ€Ð¾Ð¿Ñ•ÐµÑ,Ð°Ñ€Ð½Ñ•Ð½Ð¾Ñ?

Ð•Ñ•Ð»Ð, ÑƒÐ¶Ð²Ð½Ð¾Ñ•Ð,ÑŒ Ð·Ð·Ð½ÐµÐ½ÐµÐ½Ð Ñ•Ñ•Ð²Ñ•Ð·Ð°Ð½Ð½Ñ•Ðµ Ñ•Ð¿ÐµÑ€ÐµÑ•Ð±Ð¾Ñ€Ð°Ð¼Ð¹ Ñ•Ð'Ñ€Ð° - Ð½Ð¾Ð½ÐµÑ,Ñ,Ð¾Ð³Ð°Ð»ÐÑƒÑ‡Ñ•ÐµÐ¿Ñ•Ð½Ñ,ÑŒ Ð½Ð¾Ð½Ð¹ Ñ•Ð°Ð±Ð»Ð¾Ð½?

ÐÝÐ¾Ñ•Ð½Ð¾Ñ,Ñ•Ðµ Ð½Ð° Ñ•ÐµÐºÑ†Ð,ÑŽ @pkg_setup@ Ð»ÑŽÐ±Ð¾Ð¹ Ð²ÐµÑ•Ñ•Ð, @ebuild@-Ð° @broadcom-sta@ (Ñ•Ñ,Ð°Ñ•ÐµÐºÑ†Ð,Ñ•Ð°Ð¾Ð²Ñ•ÐµÑ... @ebuild@-Ð°Ñ... Ð¾Ð'Ð,Ð½Ð°Ð¾Ð²ÐºÑ•, Ð°Ñ•Ñ,Ð°Ñ,Ð,, Ð°Ð½Ð°Ð'Ð¾Ð±Ñ^c Ð²Ñ•Ð¾Ñ•Ñ†Ð°Ñ...Ñ•Ñ,Ð¾Ð³Ð¾ Ð½Ð¾Ð°ÑfÐ»Ñ•Ð¿Ñ•Ð½Ð¾Ñ,Ñ€ÐµÑ,ÑŒ, Ñ‡Ñ,Ð¾Ð°Ð·Ð·Ð°Ð²Ð,Ñ•Ð,Ð½Ð¾Ñ•Ñ,Ð, Ñ,Ð°Ð¼Ð½ÐµÑ,Ñ•Ð°Ð½Ñ) Ð, ÑƒÐ²Ð,Ð·Ñ,Ðµ, Ð¿Ð¾Ñ•ÐµÐ½Ñf ÑƒÐ½ÐµÐ½Ñ•Ñ,Ð°Ð°Ð¾Ð¹ "Ð½ÑfÐ'Ñ€ÐµÐ½Ñ•Ð¹" Ñ•Ð°Ð±Ð»Ð¾Ð½.

Đ¡Ð½Ñ€Ð°Ð²ÐµÐ'Ð»Ð,Ð²Ð¾Ñ•Ñ,Ð, Ñ€Ð°Ð'Ð,, Ñ•Ð'Ð¾Ð»Ð¶ÐµÐ½Ñ•Ð°Ð·Ð°Ñ,ÑŒ, Ñ‡Ñ,Ð¾Ð°Ð»ÑŽÑ‡Ñ•Ð'Ñ€Ð° @CONFIG_B44@Ñ,Ð°Ð¾Ð¶Ðµ Ð²Ð°Ð»ÑŽÑ‡ÐµÑ, @CONFIG_SSB@,Ñ,Ðµ,Ð°Ð»ÑŽÑ‡ÐµÐ»ÑŽÑ‡ÐµÑ,Ñ•Ñ. Ð•Ð¾Ð½Ñ...Ð¾Ð¶Ðµ Ñ€Ð°Ð±Ð¾Ñ,Ð°ÐµÑ,Ð,Ñ•Ð½Ð,Ð¼, Ð°Ð¾Ñ,Ð°Ð»ÑŽÑ‡Ð°Ñ,ÑŒ @CONFIG_B44@Ñ•Ð½Ðµ Ð½Ñ€ÐµÐ'Ð»Ð°Ð¾ÐºÑ,Ñ,Ð°. Ð¿Ð¾Ð·Ð¾Ð·Ñ•ÐµÐ²ÐºÑŽ, Ñ‡Ñ,Ð¾Ð¾Ð¾Ð±Ð»Ð°Ð'Ð°Ñ,ÐµÐ»Ð, "Broadcom 440x/47xx ethernet" Ñ•ÐµÑ,ÐµÐ²Ñ,Ñ...Ð,Ð½Ñ,ÐµÑ€Ñ„ÐµÐ¹Ñ•Ð¾Ð²Ð±ÑfÐ'Ñ,Ð½Ðµ Ð²Ð²Ð¾Ñ•Ñ,Ð¾Ñ€Ð³Ðµ Ð¾Ñ,Ñ•Ñ,Ð¾Ð½Ð,Ð'ÐµÐ,.

02/08/2014 09:54 am - Ð•Ð½Ð'Ñ€ÐµÐ¹ Ð¡ÐµÐ½Ð,Ð°

Ð•Ð½Ð¾Ð¶ÐµÑ,Ð¿Ð¾Ð¹Ñ,Ð,Ð'Ñ€ÑfÐ³Ð,Ð½Ð¿ÑfÑ,ÐµÐ½?

Ð•Ñ•Ð»Ð, Ð¿Ð¾Ð»ÑŒÐ·Ð¾Ð²ÐºÑ,ÐµÐ»ÑŽ Ð½ÐµÐ¾Ð±Ñ...Ð¾Ð'Ð,Ð½Ð¾Ð·ÐµÐ»Ð·ÐµÐ½ÐµÑ•Ñ,Ð,Ð·Ð½ÐµÐ½ÐµÐ½Ð,Ñ•Ð°Ð² *config* Ñ,ÐµÐºÑfÑ‰ÐµÐ³Ð¾ Ñ•Ð'Ñ€Ð° Ð,Ð»Ð,Ð±Ð¾Ð¿Ð¾Ð½ÐµÑ•Ñ,ÑŒ, Ð»Ð,Ð±Ð¾Ð¾Ñ•Ð'ÑfÐ¿ÐµÑ€ÐµÑ•Ð¾Ð±Ñ€Ð°Ñ,ÑŒ Ñ,ÐµÐºÑfÑ‰ÐµÐµ Ñ•Ð'Ñ€Ð¾Ð²Ð½ÐµÑ•Ñ,Ðµ Ñ•initrd.

02/08/2014 05:49 pm - ÐœÐ,Ñ...Ð°Ð,Ð»Ð°Ð¾Ð°ÑfÐ.

Ð•Ð½Ð'Ñ€ÐµÐ¹ Ð¡ÐµÐ½Ð,Ð° wrote:

> Д• Д½Д¾Д¶ДµÑ, Д¿Д¾Д¹Ñ,Д, Д’Ñ€ÑfД³Д,Д½ Д¿ÑfÑ,ДµД½?

>

> Д•Ñ•Д»Д, Д¿Д¾Д»ÑŒД·Д¾Д²Д°Ñ,ДµД»ÑŽ Д½ДµД¾Д±Ñ...Д¾Д’Д½ *broadcom-sta*, Ñ,Д¾ Ñ°Д±Д»Д¾Д½Д¾Д½ Д²Д½ДµÑ•Ñ,Д, Д,Д·Д½ДµД½Д,Ñ• Д² *.config* Ñ,ДµДÑfÑ%ДµД¾Д¾ Ñ•Д’Ñ€Д° Д, Д»Д,Д±Д¾ Д¿Д¾Д¿Ñ€Д¾Ñ•Д,Ñ,ÑŒ, Д»Д,Д±Д¾ Ñ•Ñ€Д°Д·ÑfД¿ДµÑ•Ñ,Дµ Ñ• initrd.

Д½Д¾Д¶Д½Д¾. Ñ• Ñ,Д°Дº Д, Ñ•Д’ДµД»Д°Д», Д² Д½Д¾Д,Ñ... iso-Ñ...Д°Ñ... Д’Д»Ñ• Д²Д½ÑfÑ,Ñ€ДµД½Д½ДµД³Д¾ Д¿Д¾Д»ÑŒД·Д¾Д²Д°Д½Д,Ñ• Ñ,Д°Дº Д, Ñ•Д’ДµД»Д°Д½Д¾.

Д•Д¾ Ñ•Ñ,Д¾ Д½Дµ Д»ÑfÑ‡Ñ·Д,Д¹ Д²Д°Ñ€Д,Д°Д½Ñ.

ДÝД¾Д²Ñ,Д¾Ñ€ÑŽÑ•ÑŒ - Д’Д»Ñ• ÑfД°Д°Д·Д°Д½Д½Д¾Д¹ Д²Ñ·Ñ`Дµ Д°Д°Ñ€Ñ,Ñ` (Д½Д° Д’Д¾Д²Д¾Д»ÑŒД½Д¾ Ñ•Д°Д²Д°Ñ·ДµД½Д½Д¾Д¼ Д±ÑfД°Дµ) Д’Ñ€Д°Д¹Д²ДµÑ€Д° Д,Д. Ñ•Д’Ñ€Д° Ñ€Д°Д±Д¾Ñ,Д°ÑŽÑ,, Д½Д¾ Ñ€Д°Д±Д¾Ñ,Д°ÑŽÑ,, Д’Д¾Д²Д¾Д»ÑŒД½Д¾ Ð°Ñ€Д,Д²Д¾ (Д»Д¾Д²Д,Ñ, Ñ,Д¾Д»ÑŒД°Д¾ Ñ,Д¾Ñ‡Ð°Ñf Ñ€Д°Ñ•Д¿Д¾Д»Д¾Д¶ДµД½Д½ÑfÑŽ Д² Ñ€Д°Д’Д,ÑfÑ•Дµ 20-30 Ñ•Д¼., Д° Д¿Ñ€Д,Д½ДµÑ€Ñf, ДµÑ•Д»Д, Ñ€Ñ•Д’Д¾Д½ Ñ• Д±ÑfД°Д¾Д½ Д¿Д¾Д»Д¾Д¶Д,Ñ,ÑŒ Ñ,ДµД»ДµÑ,Д¾Д½). ДšÑ•Ñ,Д°Ñ,Д,, Ñ• Д±Д¾Д»ДµДµ Ñ•Ñ,Д°Ñ€Ñ·Д°Д, Д½Д¾Д’ДµД»Ñ•Д½Д, broadcom-Д¾Д²Ñ•Д°Д,Ñ... Д°Д°Ñ€Ñ, Ñ•Д’ДµÑ€Д½Ñ·Д¹ Д½Д¾Д’ÑfД»ÑŒ Ñ€Д°Д±Д¾Ñ,Д°ДµÑ, Д½Д¾Ñ€Д½Д°Д»ÑŒД½Д¾.

Д- Ñ€ДµÑ~ДµД½Д,Дµ Д½Д°Ñ·ДµД». Д•Д¾ Д±Д¾Д»ÑŒÑ·Д,Д½Ñ•Ñ,Д²Д¾ Д¿Д¾Д»ÑŒД·Д¾Д²Д°Ñ,ДµД»ДµД¹, Д½Дµ Ñ•Д²Д»Ñ•ÑŽÑ%Д,Ñ...Ñ• Д³Д,Д°Д°Д½Д,, Д¿Ñ€Д¾Ñ·Ñ,Д¾ Д·Д°Д±ÑŒДµÑ, Д½Д° Ñ•Ñ,Д%, Д, Д»Д,Д±Д¾ Д±ÑfД’ДµÑ, Д,Ñ•Д°Ñ,ÑŒ usb-wifi (Ñ‡Ñ,Д¾Д± Д½Дµ Ñ€ДµÑ·Д°Ñ,ÑŒ Д¿Ñ€Д¾Д±Д»ДµД½Ñf - Д¿Д¾Д¿Ñ€Д¾Д±Д¾Д²Д°Ñ,ÑŒ ДµДµ Д¾Д±Д¾Д¹Ñ,Д,), Д»Д,Д±Д¾ Д²Д¾Д¾Д±Ñ%Дµ Д¿ДµÑ€ДµД¹Д’ДµÑ, Д½Д° ubuntu (Д½Д° Д°Д¾Ñ,Д¾Ñ€Д¾Д¹ Д²Ñ•Дµ Ñ€Д°Д±Д¾Ñ,Д°ДµÑ,, Д, Ñ€Д°Д±Д¾Ñ,Д°ДµÑ, Д¿Ñ€Д, Д¿Д¾Д¼Д¾Ñ%Д, broadcom-sta).

Д•Ñ•Ñ,ÑŒ ДµÑ%Дµ Д²Д°Ñ€Д,Д°Д½Ñ, - Д¿Д¾Д’Д¾Д¶Д’Д°Ñ,ÑŒ Ñ•Д²ДµД¶Д,Ñ... Д²ДµÑ€Ñ•Д,Д¹ Ñ•Д’Ñ€Д°, Д² Д½Д°Д’ДµД¶Д’Дµ Ñ‡Ñ,Д¾ Ñ,Д°Д¼ Ñ•Ñ,Ñf Д¿Ñ€Д¾Д±Д»ДµД½Ñf Д¿Д¾Ñ,Д,Д°Ñ•Ñ•Ñ,. Д•Д¾ Д°Д¾Д³Д’Д° Д½ÑfД¶Д½Д¾ Ñ€ДµÑ~ДµД½Д,Дµ Д·Д’ДµÑ•ÑŒ Д, Ñ•ДµД”Ñ‡Д°Ñ• - Ñ•Ñ,Д¾ Д½Дµ Д²Д°Ñ€Д,Д°Д½Ñ..

ДшÑ•Ñ,Д°Ñ,Д,, Д° Д½Д¾Д¶Д½Д¾ ÑfД·Д½Д°Ñ,ÑŒ - Ñ‡ДµД½ @PREEMPT_VOLUNTARY@ Д½Дµ Д¿Д¾Д’Ñ...Д¾Д’Д,Ñ, Д’Д»Ñ• Д’ДµÑ•Д°Ñ,Д¾Д¿Д°, Д, Ñ‡ДµД½ @PREEMPT@ Д»ÑfÑ‡Ñ·Дµ?

<pre>

```
# awk '/^S.*{p=0;} /{config PREEMPT(_VOLUNTARY)?$/{p=1;} {if(1==p)print($0);}' \
```

```
< usr/src/linux/kernel/Kconfig.preempt
```

```
config PREEMPT_VOLUNTARY
```

```
    bool "Voluntary Kernel Preemption (Desktop)"
```

```
    help
```

This option reduces the latency of the kernel by adding more "explicit preemption points" to the kernel code. These new preemption points have been selected to reduce the maximum latency of rescheduling, providing faster application reactions, at the cost of slightly lower throughput.

This allows reaction to interactive events by allowing a low priority process to voluntarily preempt itself even if it is in kernel mode executing a system call. This allows applications to run more 'smoothly' even when the system is under load.

Select this if you are building a kernel for a desktop system.

```
config PREEMPT
```

```
    bool "Preemptible Kernel (Low-Latency Desktop)"
```

```
    select PREEMPT_COUNT
```

```
    select UNINLINE_SPIN_UNLOCK if !ARCH_INLINE_SPIN_UNLOCK
```

```
    help
```

This option reduces the latency of the kernel by making all kernel code (that is not executing in a critical section) preemptible. This allows reaction to interactive events by permitting a low priority process to be preempted involuntarily even if it is in kernel mode executing a system call and would otherwise not be about to reach a natural preemption point. This allows applications to run more 'smoothly' even when the system is under load, at the cost of slightly lower throughput and a slight runtime overhead to kernel code.

Select this if you are building a kernel for a desktop or embedded system with latency requirements in the milliseconds range.

```
</pre>
ĐjÑfĐ Ñ• Đ¿Đ¾ @help@-Ñf Đ¾Đ±Đ¾Đ,Ñ... Đ¾Đ¿Ñ†Đ,Đ¹ Ñ•Đ Ñ€Đ° - Ñ€Đ°Đ·Đ½Đ,Ñ†Đ° Đ½ĐµĐ¶Đ Ñf Đ½Đ,Đ½Đ, Đ½ĐµÑ•Ñ,Đ²ĐµĐ½Đ°Ñ•, Đ½Đ¾ Đ'ĐµĐ»Đ°Ñ,ÑŒ Đ²ĐµÑ•ÑŒ Đ°Đ¾Đ' Ñ•Đ Ñ€Đ° Đ¿Đ¾Đ»Đ½Đ¾Ñ•Ñ,ÑŒÑŽ Đ¿Ñ€ĐµÑ•Ñ<Đ²Đ°ĐµĐ½Ñ•...
Đ²Đ¾ Đ¿ĐµÑ€Đ²Ñ•Ñ... - Ñ•Đ½Đ²Ñ•ĐµĐ½ Đ½Đ, Đº Ñ‡ĐµĐ½Ñf
Đ²Đ¾ Đ²Ñ,Đ¾Ñ€Ñ•Ñ... - Đ°Đ°Đº Đ²Đ,Đ'Đ½Đ¾ Đ,Đ· Đ¿Ñ€Đ¾Đ±Đ»ĐµĐ½Ñ• Ñ• @broadcom-sta@ Đ'Đ°Đ¶Đµ Đ,Đ½Đ¾Đ³Đ 'Đ° Đ²Ñ€ĐµĐ'Đ½Đ¾
Đ•Ñ•Đ»Đ, Đ°Ñ,Đ¾-Ñ,Đ¾ ÑfĐ°Đ°Đ¶ĐµÑ, Đ½Đ° Đ¿Đ»ÑŽÑ•Ñ• Đ,Ñ•Đ¿Đ¾Đ»ÑŒĐ·Đ¾Đ²Đ°Đ½Đ,Ñ• Đ,Đ½ĐµĐ½Đ½Đ¾ @CONFIG_PREEMPT@ - Ñ• ÑfĐ'Đ¾Đ²Đ¾Đ»ÑŒÑ•Ñ,Đ²Đ,ĐµĐ½ Đ¿Đ¾Ñ‡Đ,Ñ,Đ°ÑŽ.

11/20/2014 12:32 am - Igor Woznyi
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Đ•Đ½Đ 'Ñ€ĐµĐ¹ ĐjĐµĐ½Đ,Đº wrote:

> Đ• Đ½Đ¾Đ¶ĐµÑ, Đ¿Đ¾Đ¹Ñ,Đ, Đ'Ñ€ÑfĐ³Đ,Đ½ Đ¿ÑfÑ,ĐµĐ½?

>

> Đ•Ñ•Đ»Đ, Đ¿Đ¾Đ»ÑŒĐ·Đ¾Đ²Đ°Ñ,ĐµĐ»ÑŽ Đ½ĐµĐ¾Đ±Ñ...Đ¾Đ,Đ½ *broadcom-sta*, Ñ,Đ¾ Ñ°Đ±Đ»Đ¾Đ½Đ¾Đ½Đ' Đ²Đ½ĐµÑ•Ñ,Đ, Đ,Đ½ĐµĐ½ĐµĐ½Đ,Ñ• Đ² *.config* Ñ,ĐµĐºÑfÑ‰ĐµĐ³Đ¾ Ñ•Đ Ñ€Đ° Đ, Đ»Đ,Đ±Đ¾ Đ¿Đ¾Đ¿Ñ€Đ¾Ñ•Đ,ÑŒ, Đ»Đ,Đ±Đ¾ Ñ•Ñ€Đ°Đ·Ñf Đ¿ĐµÑ€ĐµÑ•Đ¾Đ±Ñ€Đ°Ñ,ÑŒ Ñ,ĐµĐºÑfÑ‰ĐµĐµ Ñ•Đ Ñ€Đ¾ Đ²Đ½ĐµÑ•Ñ,Đµ Ñ• initrd.

ÑfĐ²Đ°Đ¶Đ°ĐµĐ½Ñ•Đ¹, Đ° Đ½Đ¾Đ¶Đ½Đ¾ Đ½Đ¾Đ²Đ,Ñ‡ĐºÑf Đ¿Đ¾Đ'Ñ€Đ¾Đ±Đ½ĐµĐµ? Đ'Đ»Ñ• 14Đ¹ ĐšĐ°Đ»ÑŒĐ°Đ, Đ½Đµ Đ²Đ,Đ,Ñ,Ñ•ĐµÑ,ĐµĐ²ÑfÑ...Ñf Broadcom BCM43227 802.11b/g/n