Packages - Bug #1750

linux-libre does not boot

2018-04-20 07:54 AM - nona

Status:	fixed	**% Done:**	0%
Priority:	bug		
Assignee:	bill-auger		
Category:			

Description

Way to reproduce
1. Update to 4.9 < linux-libre <= 4.15.15_gnu-1 (I am unsure when it started)
2. Restart
3. Select linux-libre to boot

Current behaviour
I get some message about AMD Vi (I don't remember if it's Vi), then it stays there. I don't even get to the password prompt from cryptsetup

Desired behaviour
Running OS

System specifications
systemD
https://labs.parabola.nu/attachments/350/lspci.txt

History

#1 - 2018-04-20 08:11 AM - bill-auger

- Assignee set to Megver83

- Status changed from open to info needed

nona - more information is probably needed

what is your CPU class?
are you running libreboot or the factory default?
depending on your setup, the password maybe asked by the GRUB bootloader - if so then it has nothing to do with the kernel - do you have what is called "full disk encryption"? does the password prompt usually have the words GRUB nearby?

most importantly, are you saying that parabola was working correctly on this computer prior to or including linux-libre 4.9 ?
and you see this problem after upgrading to 4.15.15_gnu-1 ?

the current version of linux-libre is 4.15.17_gnu-1 - if you have a parabola LiveISO handy (and you really should), you could install the latest linux-libre
you could also try linux-libre-lts and linux-libre-xtreme libre/linux-libre-hardened and linux-libre-rt for fun

#2 - 2018-04-22 12:23 AM - nona

I wished I had libreboot!
Yes: Full-disk encryption. It never gets to the password prompt. This is all I get:
AMD-Vi: Unable to write to IOMMU perf counter
starting version 238

It boots with linux-libre-lts. I think that it stopped working near 4.15 (possibly one or two updates before). It definitely is there with the latest kernels. As a matter of experience, I keep the lts kernel installed and old kernels in the pacman/pkg directory. Linux-libre-xtreme has the same issues.

```
$ lscpu
Architecture:        x86_64
CPU op-mode(s):      32-bit, 64-bit
Byte Order:          Little Endian
CPU(s):              8
On-line CPU(s) list: 0-7
Thread(s) per core:  2
Core(s) per socket:  4
Socket(s):           1
NUMA node(s):        1
Vendor ID:           AuthenticAMD
```

```
CPU family:          23
Model:               17
Model name:          AMD Ryzen 5 2500U with Radeon Vega Mobile Gfx
Stepping:            0
CPU MHz:             1586.199
CPU max MHz:         2000.0000
CPU min MHz:         1600.0000
BogoMIPS:            3992.26
Virtualization:      AMD-V
L1d cache:           32K
L1i cache:           64K
L2 cache:            512K
L3 cache:            4096K
NUMA node0 CPU(s):   0-7
Flags:               fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr
sse sse2 ht syscall nx mmxext fxsr_opt pdpe1gb rdtscp lm constant_tsc rep_good nopl nonstop_tsc cpuid extd_api
cid aperfmperf pni pclmulqdq monitor ssse3 fma cx16 sse4_1 sse4_2 movbe popcnt aes xsave avx f16c rdrand lahf_
lm cmp_legacy svm extapic cr8_legacy abm sse4a misalignsse 3dnowprefetch osvw skinit wdt tce topoext perfctr_c
ore perfctr_nb bpext perfctr_llc mwaitx hw_pstate sme vmmcall fsgsbase bmi1 avx2 smep bmi2 rdseed adx smap clf
lushopt sha_ni xsaveopt xsavec xgetbv1 xsaves clzero irperf xsaveerptr arat npt lbrv svm_lock nrip_save tsc_sc
ale vmcb_clean flushbyasid decodeassists pausefilter pfthreshold avic v_vmsave_vmload vgif overflow_recov succ
or smca
```

```
$ uname -r
4.14.34-gnu-1-lts
```

#3 - 2018-05-25 08:53 AM - nona

I don't know if this is good news, but I did a fresh install with the complete install liveiso (Linux parabolaiso 4.13.11-gnu-1 #1 SMP PREEMPT Fri Nov 3 21:09:48 CET 2017 x86_64 GNU/Linux), and the computer boots and reboots correctly. I don't dare to say exactly which file I used for the iso, but it could be this: parabola-systemd-cli-dual-complete-2017.10.17-21.39-alpha.iso. If you let me know how I can check that, I can report it correctly.

So, the issue arises between 4.13.11-gnu-1 and 4.15xx. Is it just the kernel? I don't know (may be linux-libre-firmware?).

#4 - 2018-05-25 08:40 PM - Megver83

If you are sure it's a kernel issue, please show us your whole dmesg output, the one of the working kernel and the one of the non-functional one (if possible).

#5 - 2018-05-26 09:09 AM - nona

- File dmesg.out added

I don't know how to produce the non-functional (any guidance is welcome). The functional one (linux-libre-lts) is attached.

#6 - 2018-06-11 05:00 AM - nona

After long time of having crashed my computer, reformatting, re-encrypting, etc. I can confirm that the issue is the kernel. I upgrade the whole system ignoring the linux-libre package. Once I upgrade the kernel, the booting process stops working. The linux-libre-lts 4.14.48-gnu-1-lts works, but does not shutdown nor reboot. There is no problem with the fresh install: linux-libre 4.13.11-gnu-1.

Let me know if there is anything else that I can provide (and why is this marked as info needed?)

#7 - 2018-06-27 01:09 AM - nona

Good news! My system boots, shuts down and I have a graphical interface (https://labs.parabola.nu/issues/1685, https://labs.parabola.nu/issues/1819#note-18). This is what I did (from the first link):

- Update the system

```
# optional: rm -fr /var/lib/pacman/db.lck
pacman -Rnucs libxfont
pacman -S libxfont2
pacman -Sy parabola-keyring archlinux-keyring
pacman-key --refresh-keys
pacman -Syu --noconfirm
```

- Get rid of-- and reinstall lightdm

```
# Manually CTRL + ALT + F2 to login into a virtual console (login with your credentials)
systemctl stop lightdm
ps aux | grep lightdm  # get any running instance
top  # just to make sure that it's not hanging around
```

```
kill -30 <any lightdm related process>
pacman -Rnucs lightdm lightdm-gtk-greeter lightdm-gtk-greeter-settings
pacman -U /var/cache/pacman/pkg/linux-libre-4.17.2*  # reinstall any kernel you want (just to make sure)
pacman -S lightdm lightdm-gtk-greeter lightdm-gtk-greeter-settings efibootmgr
```

- Reinstall the bootloader

```
grub-install --target=x86_64-efi --efi-directory=/boot/efi --recheck
# --boot-directory=/boot automatically; the --bootloader-id=parabola
grub-mkconfig -o /boot/grub/grub.cfg
```

- Reboot

#8 - 2018-06-27 01:11 AM - nona

Solved! https://labs.parabola.nu/issues/1685#note-7

I nailed it down to this:
amdgpu is breaking my installation. If I **remove amdgpu from mkinitcpio.conf** (MODULES) and run **pacman -Rnucs xf86-video-amdgpu**, I can boot and shutdown

#9 - 2018-07-06 12:41 AM - nona

AMDGPU definitely interferes with the booting process. One can input the password after the blank screen (blindly, without knowing what is going on; after a bit of time) if amdgpu is enabled in mkinitcpio.conf with MODULES=(... amdgpu ...)

```
pacman -S mesa libva-mesa-driver libva-vdpau-driver mesa-vdpau libvdpau-va-gl libva libva-utils vdpauinfo xf86
-video-amdgpu
mkinitcpio -p linux-libre  # change linux-libre for your version or use -P instead
```

I am going to shutdown and restart to see if that is affected.

#10 - 2018-07-06 12:56 AM - nona

Restarting goes well (not tested with other kernels).

```
$ uname -r
4.17.3-gnu-1

$ lspci | grep -i vga
03:00.0 VGA compatible controller: Advanced Micro Devices, Inc. [AMD/ATI] Raven Ridge [Radeon Vega Series / Ra
deon Vega Mobile Series] (rev c4)
```

#11 - 2020-06-27 12:10 AM - bill-auger

- Assignee changed from Megver83 to bill-auger

#12 - 2020-06-27 12:10 AM - bill-auger

- Status changed from info needed to fixed

Files

dmesg.out	56.7 KB	2018-05-26	nona