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Nvidia drivers on CentOS 7

Author: Admin | Posted In Howto | 9 Comments

Since RPM Fusion doesn't support RHEL / CentOS 7 and I didn't feel like dealing with the Nvidia installer, I tried to find alternative package repositories. Fortunately I came across ELRepo which has been providing Nvidia drivers (from the long-lived branch release) in form of precompiled kernel drivers (kmod-nvidia) for a few months.

I tested it on a fresh CentOS 7 installation (using the GNOME Desktop option) and it was pretty straightforward.

Import the rpm GPG key

```
rpm --import https://www.elrepo.org/RPM-GPG-KEY-elrepo.org
```

Install ELRepo

```
yum install http://www.elrepo.org/elrepo-release-7.0-2.el7.elrepo.noarch.rpm
```

Remove Glamor

This is an open source Xorg graphics driver that may cause conflicts with proprietary drivers. If the package is installed it needs to be removed.

```
yum remove xorg-x11-glamor
```

Install nvidia-detect [optional]

This is a small utility which detects graphic cards, suggests specific driver versions and checks compatibility with Xorg.

```
yum install nvidia-detect
```

Sample output:

```
nvidia-detect -x
Probing for supported NVIDIA devices...
```

```
[10de:11c0] NVIDIA Corporation GK106 [GeForce GTX 660]
This device requires the current 340.32 NVIDIA driver kmod-nvidia
[10de:11c0] NVIDIA Corporation GK106 [GeForce GTX 660]
This device requires the current 340.32 NVIDIA driver kmod-nvidia

Checking ABI compatibility with Xorg Server...
Xorg Video Driver ABI detected: 15
ABI compatibility check passed
```

Install kmod-nvidia

When running a 64bit OS, the 32bit Nvidia libraries may also be needed for compatibility, I always install them. The good thing is that **kmod-nvidia** also disables *nouveau* automatically, so no more manually tweaking modprobe and grub :)

```
yum install kmod-nvidia nvidia-x11-drv-32bit
```

via elrepo.org

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- Upgrade to CentOS 7
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G+1

🦅JD

Comments

Posted by **DS**   *December 20, 2014*
I just tried this but after reboot there is no desktop. It just goes grub menu then nothing but a black screen with a flashing cursor in the top left corner. Do you have any suggestions before I uninstall nvidia?

I'm running a reasonably fresh CentOS 7 install with gnome desktop option as well.

Reply

Posted by **Admin**   *December 20, 2014*
@DS: It could be the nouveau driver causing conflicts with nvidia. After installing kmod-nvidia a new file is created /usr/lib/modprobe.d/blacklist-nouveau.conf that blacklists nouveau. Do you have it on your machine? As per this file, if nouveau continues to load run this as root:

```
dracut -f /boot/initramfs-$(uname -r).img $(uname -r)
```

Reply

Posted by **DS**   *December 20, 2014*

@admin: Thanks for taking the time. Yes the blacklist-nouveau.conf file was created
during the process. After running the dracut cmd I still had the same problem. Not sure
what is going on. I've also attempted to download the nvidia driver ".run" file and install it
that way but I get the same blank screen problem..

I'm starting to get out of my depth here. I might get a colleague to take a look who has a
bit more of a sys-admin background than myself. I'll let you know how I get on.

Reply

Posted by **Jay Warren**   *December 26, 2014*

take a look at /etc/sysconfig/grub and look for these in GRUB_CMDLINE_LINUX

nouveau.modeset=0
rd.driver.blacklist=nouveau

this is documented in the rhel7 release notes, simply adding it to modprobe.d is not
enough.

Reply

Posted by **Sleever**   *February 23, 2015*

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this is documented in the rhel7 release notes, simply adding it to modprobe.d is not
enough....

So what does it mean if it is there? Does it need to be removed from there?

Reply

Posted by **Admin**   *February 24, 2015*

@jay warren: those lines should be added automatically by kmod-nvidia
@sleever: if those lines are there, it means the Nouveau driver is
blacklisted, which is good if you have the Nvidia driver installed

Reply

Posted by **Desertcat**   *April 9, 2015*

Ran into the blinking cursor problem too. The problem seems to be due to $@&*^% M$
and their UEFI. You may have to simply do a re-install boot from a NON UEFI enabled
device and then when you do the install make sure there is NO partition marked
/boot/efi, but you *will* need a /boot partition. If you encounter a /boot/efi partition
remove it, and continue with the install. Once you have the system up and running follow
the above and reboot, and PRESTO!! like magic Nvidia will be up and running. The key to
the whole blinking cusor problem is to ensure you DO NOT boot from a UEFI enabled
device, and to remove any /boot/efi partition during the install phase.

Reply

Posted by **Thomas Prescott**   *March 5, 2016*

If you're using SecureBoot, you'll need to follow the steps linked below for the kernel
module to load correctly. You have to get the UEFI shim to trust ELRepo's signing key.

https://www.elrepo.org/tiki/SecureBootKey

Reply