

Centos7升级内核:

1、查看内核版本

```
[root@centos7 ~]# uname -sr
Linux 3.10.0-957.el7.x86_64
```

2、安装yum源

```
[root@centos7 ~]# rpm --import https://www.elrepo.org/RPM-GPG-KEY-elrepo.org
[root@centos7 ~]# rpm -Uvh http://www.elrepo.org/elrepo-release-7.0-3.el7.elrepo.noarch.rpm
Retrieving http://www.elrepo.org/elrepo-release-7.0-3.el7.elrepo.noarch.rpm
Preparing... ##### [100%]
Updating / installing...
 1:elrepo-release-7.0-3.el7.elrepo ##### [100%]
```

3、列出可用的kernel.related软件包:

```
[root@centos7 ~]# yum --disablerepo="*" --enablerepo="elrepo-kernel" list available
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
* elrepo-kernel: mirrors.tuna.tsinghua.edu.cn
elrepo-kernel
elrepo-kernel/primary_db
Available Packages
elrepo-release.noarch                7.0-4.el7.elrepo
kernel-lt.x86_64                     4.4.193-1.el7.elrepo
kernel-lt-devel.x86_64               4.4.193-1.el7.elrepo
kernel-lt-doc.noarch                 4.4.193-1.el7.elrepo
kernel-lt-headers.x86_64             4.4.193-1.el7.elrepo
kernel-lt-tools.x86_64               4.4.193-1.el7.elrepo
kernel-lt-tools-libs.x86_64          4.4.193-1.el7.elrepo
kernel-lt-tools-libs-devel.x86_64    4.4.193-1.el7.elrepo
kernel-ml.x86_64                     5.3.0-1.el7.elrepo
kernel-ml-devel.x86_64               5.3.0-1.el7.elrepo
kernel-ml-doc.noarch                 5.3.0-1.el7.elrepo
kernel-ml-headers.x86_64             5.3.0-1.el7.elrepo
kernel-ml-tools.x86_64               5.3.0-1.el7.elrepo
kernel-ml-tools-libs.x86_64          5.3.0-1.el7.elrepo
kernel-ml-tools-libs-devel.x86_64    5.3.0-1.el7.elrepo
perf.x86_64                          5.3.0-1.el7.elrepo
python-perf.x86_64                   5.3.0-1.el7.elrepo
```

4、安装最新的稳定内核:

```
[root@centos7 ~]# yum --enablerepo=elrepo-kernel install kernel-ml
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
```

```

epel/x86_64/metalink | 5.6 kB 00:00:00
* base: mirrors.aliyun.com
* elrepo: mirrors.tuna.tsinghua.edu.cn
* elrepo-kernel: mirrors.tuna.tsinghua.edu.cn/elrepo
elrepo | 3.6 kB 00:00:00
epel | 3.2 kB 00:00:00
(1/2): elrepo/primary_db
(2/2): epel/x86_64/primary_db
Resolving Dependencies
--> Running transaction check
--> Package kernel-ml.x86_64 0:5.3.0-1.el7.elrepo will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
=====
Package Arch Version
Repository Size
=====
=====
Installing:
kernel-ml x86_64 5.3.0-1.el7.elrepo elrepo-
kernel 48 M

Transaction Summary
=====
=====
Install 1 Package

Total download size: 48 M
Installed size: 216 M
Is this ok [y/d/N]: y
Downloading packages:
kernel-ml-5.3.0-1.el7.elrepo.x86_64.rpm
| 48 MB 00:00:15
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Warning: RPMDB altered outside of yum.
Installing : kernel-ml-5.3.0-1.el7.elrepo.x86_64 1/1
Verifying : kernel-ml-5.3.0-1.el7.elrepo.x86_64 1/1

Installed:
kernel-ml.x86_64 0:5.3.0-1.el7.elrepo

Complete!

```

5、**reboot** 机器应用最新的内核，然后从菜单中选择最新的内核，如图所示：

```
CentOS Linux (5.3.0-1.el7.elrepo.x86_64) 7 (Core)
CentOS Linux (3.10.0-957.el7.x86_64) 7 (Core)
CentOS Linux (0-rescue-591810cd8c9746b99274679f1f25bd52) 7 (Core)
```

Use the ↑ and ↓ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.

6、登录，并运行以下命令检查内核版本：

```
[root@centos7 ~]# uname -sr
Linux 5.3.0-1.el7.elrepo.x86_64
```

7、在 `vim /etc/default/grub` 中设置 `GRUB_DEFAULT=0`，初始屏幕中的第一个内核将用作默认内核版本：

```
GRUB_TIMEOUT=5
GRUB_DISTRIBUTOR="$(sed 's, release .*$,,g' /etc/system-release)"
GRUB_DEFAULT=saved
GRUB_DISABLE_SUBMENU=true
GRUB_TERMINAL_OUTPUT="console"
GRUB_CMDLINE_LINUX="rd.lvm.lv=centos/root rd.lvm.lv=centos/swap rhgb quiet"
GRUB_DISABLE_RECOVERY="true"
GRUB_DEFAULT=0
~
~
~
~
~
```

8、运行以下命令以重新创建内核配置

```
[root@centos7 ~]# grub2-mkconfig -o /boot/grub2/grub.cfg
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-5.3.0-1.el7.elrepo.x86_64
Found initrd image: /boot/initramfs-5.3.0-1.el7.elrepo.x86_64.img
Found linux image: /boot/vmlinuz-3.10.0-957.el7.x86_64
Found initrd image: /boot/initramfs-3.10.0-957.el7.x86_64.img
Found linux image: /boot/vmlinuz-0-rescue-591810cd8c9746b99274679f1f25bd52
Found initrd image: /boot/initramfs-0-rescue-591810cd8c9746b99274679f1f25bd52.img
done
```

9、`reboot` 后验证默认情况下正在使用最新的内核：

```
CentOS Linux (5.3.0-1.el7.elrepo.x86_64) 7 (Core)
CentOS Linux (3.10.0-957.el7.x86_64) 7 (Core)
CentOS Linux (0-rescue-591810cd8c9746b99274679f1f25bd52) 7 (Core)
```

```
Use the ↑ and ↓ keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.
```