**How can I configure hugepages in Red Hat Enterprise Linux?**

 SOLUTION VERIFIED - Updated February 10 2022 at 7:07 AM -

[English](https://access.redhat.com/solutions/33613)

Environment

* Red Hat Enterprise Linux (RHEL) 5
* Red Hat Enterprise Linux (RHEL) 6
* Red Hat Enterprise Linux (RHEL) 7
* Red Hat Enterprise Linux (RHEL) 8
* Red Hat Enterprise Linux (RHEL) 9 (Beta)

Issue

* How can I configure hugepages in Red Hat Enterprise Linux?

Resolution

**Prefered method:**  
Use the hugepages=X kernel parameter to set X number of huge pages.

[Raw](https://access.redhat.com/solutions/33613)

[root@rhel7 ~]# cat /proc/cmdline

BOOT\_IMAGE=/vmlinuz-3.10.0-1127.el7.x86\_64 root=/dev/mapper/rhel\_rhel7-root ro crashkernel=auto spectre\_v2=retpoline rd.lvm.lv=rhel\_rhel7/root rd.lvm.lv=rhel\_rhel7/swap rhgb quiet hugepages=10

[root@rhel7 ~]# cat /proc/sys/vm/nr\_hugepages

10

Huge page reservations are allocated from free and contiguous RAM. By using this method the allocation happens early in the boot process where memory is much more likely to be free and contiguous.

See also:

* [How do I permanently modify the kernel command line in RHEL5 and RHEL6?](https://access.redhat.com/solutions/3017471)
* [How do I permanently modify the kernel command line in RHEL7/8?](https://access.redhat.com/solutions/1136173)

**Alternate method:**  
Configure hugepages by using the kernel tunable **vm.nr\_hugepages**

For example:

1. Edit /etc/sysctl.conf file and specify the number of hugepages in the nr\_hugepages :

[Raw](https://access.redhat.com/solutions/33613)

vm.nr\_hugepages = 10

1. Execute sysctl command.

[Raw](https://access.redhat.com/solutions/33613)

# sysctl -p

<snip>

vm.nr\_hugepages = 10

* Confirm in /proc/meminfo :

[Raw](https://access.redhat.com/solutions/33613)

# cat /proc/meminfo | grep Huge

HugePages\_Total: 10

HugePages\_Free: 10

HugePages\_Rsvd: 0

Hugepagesize: 2048 kB

**Note** : It's recommended to restart the system after configuring hugepages as the chances of having free contiguous memory (for hugepages allocation) is much greater when a system is started.

Comments

* For more details check the kernel documentation at : /usr/share/doc/kernel-doc-2.6.18/Documentation/vm/hugetlbpage.txt

**Note**: The above file is provided by the kernel-doc package.

* **Product(s)**

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