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# How To Flush Memory Cache on Linux Server

Written by [Rahul K.](#)

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Many times systems faced low memory issues of Linux systems running a while. The reason is that Linux uses so much memory for disk cache is because the RAM is wasted if it isn't used. Cache is used to keep data to use frequently by the operating system. Reading data from cache is 1000's time faster than reading data from hard drive. It's good for the OS to get data from the cache in memory. But if any data not found in the cache, it reads from hard disk. So it's no problem to flush cache memory. This article has details about how to Flush Memory Cache on Linux Server.

## Clear Linux Memory Buffer Cache:

There are three options available to flush cache of Linux memory. Use one of below as per your requirements.

- Free pagecache, dentries and inodes in cache memory

```
# sync; echo 3 > /proc/sys/vm/drop_caches
```

- Free dentries and inodes use following command

```
# sync; echo 2 > /proc/sys/vm/drop_caches
```

- Free pagecache only use following command

```
# sync; echo 1 > /proc/sys/vm/drop_caches
```

## Schedule Cron to Flush Cache Regularly

It's a good idea to schedule following in crontab to automatically flush cache on the regular interval. Use 'crontab -e' command to edit cron on your system.

```
# crontab -l
0 * * * * sync; echo 3 > /proc/sys/vm/drop_caches
```

The above cron will execute on every hour and flushes the memory cache on your system.

## Find Cache Memory uses in Linux

Use `free` command to find out cache memory uses by Linux system. Output of free command is like below

```
# free -m
```

### Sample Output

|                    | total | used  | free  | shared | buffers | cached |
|--------------------|-------|-------|-------|--------|---------|--------|
| Mem:               | 16050 | 15908 | 142   | 0      | 120     | 14953  |
| -/+ buffers/cache: |       | 834   | 15216 |        |         |        |
| Swap:              | 0     | 0     | 0     |        |         |        |

Last column is showing cached memory (14953 MB) by system. `-m` option is used for showing memory details in MB's.

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**RAHUL K.**

I, Rahul Kumar is the founder and chief editor of TecAdmin.net. I am Red Hat Certified Engineer (RHCE) and working as IT professional since 2009.

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**10 COMMENTS****RAJU GINNE**[↩ REPLY TO RAJU](#)

December 22, 2016 at 11:49 am

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your help appreciated

**JUAN PHAM**[↩ REPLY TO JUAN](#)

June 7, 2016 at 8:29 am

I am getting the error that why my DNS server consume a lot of memory (run by CentOS 6.6). When this issue happen, the PCs which are assigned DNS IP of this server DNS, they can not browse internet? How can I fix this?

**WOOD**[↩ REPLY TO WOOD](#)

February 2, 2016 at 10:06 am

My memory usage is getting iuncreaseds on Application server as well as DB server can I setup cron to clear the cache every 5 hours?

Will it increase performance?

**ANDREAS**[↩ REPLY TO ANDREAS](#)

February 2, 2016 at 12:57 pm

Yes, it will DECREASE performance. Please refer to the kernel documentation at <https://www.kernel.org/doc/Documentation/sysctl/vm.txt> (search for drop\_cache)

**SIVA**[↩ REPLY TO SIVA](#)

January 29, 2016 at 10:01 am

In my Centos server the cache memory keeps on increasing. If i run cronjob everyday, is it make any problem to the server RAM.

It will make any performance issues.

**ANDREAS**[↩ REPLY TO ANDREAS](#)

November 26, 2015 at 3:09 pm

The advice of flushing cache is totally non-sense and only for debugging-purpose. Please refer to the Kernel documentation in

<https://www.kernel.org/doc/Documentation/sysctl/vm.txt>

**JAYAKUMAR**[↩ REPLY TO JAYAKUMAR](#)

July 8, 2015 at 4:35 am

If i run this command also. still it holds cache memory. Do u have any solution or idea to clear the cache memory.?

```
[root@jai ~]# free -g && sync; echo 3 > /proc/sys/vm/drop_caches && free -g
total used free shared buffers cached
Mem: 141 123 18 17 0 17
-/+ buffers/cache: 105 35
Swap: 19 0 19
```

```
total used free shared buffers cached
Mem: 141 123 18 17 0 17
-/+ buffers/cache: 105 35
Swap: 19 0 19
[root@jai ~]#
```

**T[M]**[↩ REPLY TO T\[M\]](#)

October 18, 2014 at 10:33 pm

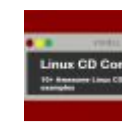
The system will not force active programs to disk in preference of keeping non-essential stuff in cache. It will drop the least recently used items from cache to make room for new programs rather than more your program to swap. It \*will\* move the inactive data for programs that are currently 'running' (i.e. in the wait queue) to swap if it has to. If your system is doing this it's b/c whatever processes you are currently running are chewing up lots of RAM. Manually flushing your cache won't do a thing. And this is LINUX not windows, Linux will intelligently use your RAM to improve your performance rather than leaving it idle. Forcing flushes is a silly thing to do unless you are running benchmarking programs multiple times.

**TED G**[↩ REPLY TO TED](#)

August 14, 2014 at 2:16 am

Thanks! Clear and precise.

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**SERGIO**

July 10, 2014 at 8:14 pm  
muchas gracias!

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