Linux distributions using `systemd`

For Linux distributions that use systemd, you can specify limits within the [Service] sections of service scripts if you start mongod and/or mongos instances as systemd services. You can do this by using resource limit directives[117].

Specify the *Recommended ulimit Settings* (page 289), as in the following example:

```
[Service]
# Other directives omitted
# (file size)
LimitFSIZE=infinity
# (cpu time)
LimitCPU=infinity
# (virtual memory size)
LimitAS=infinity
# (open files)
LimitNOFILE=64000
# (processes/threads)
LimitNPROC=64000
```

Each systemd limit directive sets both the "hard" and "soft" limits to the value specified.

After after changing limit stanzas, ensure that the changes take effect by restarting the application services, using the following form:

```
systemctl restart <service name>
```

`/proc` File System

Note: This section applies only to Linux operating systems.

The /proc file-system stores the per-process limits in the file system object located at /proc/<pid>/limits, where <pid> is the process's *PID* or process identifier. You can use the following bash function to return the content of the limits object for a process or processes with a given name:

```
return-limits(){

    for process in $@; do
        process_pids=`ps -C $process -o pid --no-headers | cut -d " " -f 2`

        if [ -z $@ ]; then
           echo "[no $process running]"
        else
           for pid in $process_pids; do
                echo "[$process #$pid -- limits]"
                cat /proc/$pid/limits
           done
        fi

    done

}
```

You can copy and paste this function into a current shell session or load it as part of a script. Call the function with one the following invocations:

---

[117]http://www.freedesktop.org/software/systemd/man/systemd.exec.html#LimitCPU=