

Limits setzen/überschreiben mit systemd

Wie kann ich Limits für Services setzen, die via systemd gestartet werden? Meine Einstellungen in `/etc/security/limits.conf` oder `/etc/security/limits.d/*.conf` werden ignoriert, da diese nur von `pam_limits.so` verwendet werden, was systemd nicht nutzt.

Um die Limit anzupassen muss das systemd unit angepasst werden, z.B. für MySQL:

```
$ systemctl edit mysql.service
# einfügen und speichern:
[Service]
LimitNOFILE=500000

# Service neu starten
$ systemctl restart mysql.service
```

Im `systemctl status` sieht man jetzt den Override

```
$ systemctl status mysql.service
● mysql.service - Percona Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Drop-In: /etc/systemd/system/mysql.service.d
            └─override.conf
```

Limits für alle Prozesse überschreiben

```
mkdir -p /etc/systemd/system.conf.d/
cat >/etc/systemd/system.conf.d/10-filelimit.conf <<EOF
[Manager]
DefaultLimitNOFILE=500000
EOF
systemctl daemon-reload
## ggf. Reboot!
```

Folgende Limits können überschrieben werden:

Directive	ulimit equivalent	Unit	Notes
LimitCPU=	ulimit -t	Seconds	-
LimitFSIZE=	ulimit -f	Bytes	-
LimitDATA=	ulimit -d	Bytes	Don't use. This limits the allowed address range, not memory use! Defaults to unlimited and should not be lowered. To limit memory use, see MemoryMax= in systemd.resource-control(5).
LimitSTACK=	ulimit -s	Bytes	-
LimitCORE=	ulimit -c	Bytes	-
LimitRSS=	ulimit -m	Bytes	Don't use. No effect on Linux.
LimitNOFILE=	ulimit -n	Number of File Descriptors	Don't use. Be careful when raising the soft limit above 1024, since select(2) cannot function with file descriptors above 1023 on Linux. Nowadays, the hard limit defaults to 524288, a

			very high value compared to historical defaults.
Typically			
			applications should increase their soft limit to the hard
			limit on their own, if they are OK with working with file
			descriptors above 1023, i.e. do not use select(2). Note
that			
			file descriptors are nowadays accounted like any other
form of			
			memory, thus there should not be any need to lower the
hard			
			limit. Use MemoryMax= to control overall service memory
use,			
			including file descriptor memory.

	LimitAS=	ulimit -v	Bytes
not memory			Don't use. This limits the allowed address range,
			use! Defaults to unlimited and should not be lowered. To
limit			
			memory use, see MemoryMax= in systemd.resource-
control(5).			

	LimitNPROC=	ulimit -u	Number of Processes
number of processes			This limit is enforced based on the
			belonging to the user. Typically it's better to track
			processes per service, i.e. use TasksMax=, see
			systemd.resource-control(5).

	LimitMEMLOCK=	ulimit -l	Bytes
			-

	LimitLOCKS=	ulimit -x	Number of Locks
			-

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| LimitSIGPENDING= | ulimit -i | Number of Queued Signals | -

| LimitMSGQUEUE= | ulimit -q | Bytes | -

| LimitNICE= | ulimit -e | Nice Level | -

| LimitRTPRIO= | ulimit -r | Realtime Priority | -

| LimitRTTIME= | ulimit -R | Microseconds | -

Weitere Infos in den manpages

man 5 systemd.exec

man 5 systemd.resource-control

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