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 | 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).

| LimitNPROC= | ulimit -u | Number of Processes | This limit is enforced based on the number of processes 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	-
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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