How to stop / start services in boot time and install / remove / update SuSE SLES (Suse Enterprise Linux Server)?

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If you're long time Linux sysadmin but you haven't need to adminster SuSE Linux still and **your company buys other business / company which already owns some SuSE servers and you need to deal with them**, even though you're just **starting up with SuSE Linux** but you had already plenty of

experience with other Linux distributions **Fedora / RHEL / CentOS,** don't worry set up / stop / start a service (daemon) to boot on Linux boot time is just the **same as any other Redhat (RPM) Linux based distributions**. it is done by multiple shell scripts located in **/etc/init.d** directory which can be manually stopped start by issuing the script with an argument e.g

```
 suse:/etc/init.d# cd /etc/init.d/
suse:/etc/init.d# ./snmpd
Usage: ./snmpd {start|stop|try-restart|restart|force-reload|reload|status}
```

To configure how each of the **/etc/init.d/** existent service boots you can the use good

old **/sbin/chkconfig** (a script written in perl) - which you already know from **Fedora / CentOS and**

other RPM distros.

1. Get a list of all enabled on boot SuSE Linux services

To get a list of all set up to run on boot SuSE server services with chkconfig:

```
suse:/etc/init.d# /sbin/chkfong --list
```

```
  Makefile              0:off  1:off  2:off  3:off  4:off  5:off  6:off
OVCtrl                0:off  1:off  2:off  3:on   4:on   5:on   6:off
SuSEfirewall2_init      0:off  1:off  2:off  3:off  4:off  5:off  6:off
SuSEfirewall2_setup     0:off  1:off  2:off  3:off  4:off  5:off  6:off
Tivoli_lcfd1          0:off  1:off  2:on   3:on   4:off  5:on   6:off
Tivoli_lcfd1.bkp      0:off  1:off  2:off  3:off  4:off  5:off  6:off
aaeventd              0:off  1:off  2:off  3:off  4:off  5:off  6:off
acpid                 0:off  1:off  2:on   3:on   4:off  5:on   6:off
alsasound             0:off  1:off  2:on   3:on   4:off  5:on   6:off
apache2-eis           0:off  1:off  2:off  3:off  4:off  5:off  6:off
atd                   0:off  1:off  2:off  3:off  4:off  5:off  6:off
auditd                0:off  1:off  2:off  3:on   4:off  5:on   6:off
autofs                0:off  1:off  2:off  3:off  4:off  5:off  6:off
autoyast              0:off  1:off  2:off  3:off  4:off  5:off  6:off
boot.apparmor         0:off  1:off  2:on   3:on   4:off  5:on   6:off  B:on
cron                  0:off  1:off  2:on   3:on   4:off  5:on   6:off
dbus                  0:off  1:off  2:off  3:on   4:off  5:on   6:off
earlykbd              0:off  1:off  2:off  3:off  4:off  5:on   6:off
earlysyslog           0:off  1:off  2:off  3:off  4:off  5:on   6:off
esound                0:off  1:off  2:off  3:off  4:off  5:off  6:off
evms                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
fbset                 0:off  1:on   2:on   3:on   4:off  5:on   6:off
firstboot             0:off  1:off  2:off  3:off  4:off  5:off  6:off
```

```
fixperms            0:off  1:off  2:off  3:off  4:off  5:off  6:off
gpm                 0:off  1:off  2:off  3:off  4:off  5:off  6:off
gssd                0:off  1:off  2:off  3:off  4:off  5:off  6:off
gwproxy             0:off  1:off  2:on   3:on   4:off  5:on   6:off
haldaemon           0:off  1:off  2:off  3:on   4:off  5:on   6:off
hp-health           0:off  1:off  2:on   3:on   4:on   5:on   6:off
hp-ilo              0:off  1:off  2:off  3:on   4:off  5:on   6:off
hp-snmp-agents      0:off  1:off  2:on   3:on   4:on   5:on   6:off
hpsmhd              0:off  1:off  2:off  3:on   4:on   5:on   6:off
idmapd              0:off  1:off  2:off  3:off  4:off  5:off  6:off
ipmi                0:off  1:off  2:off  3:off  4:off  5:off  6:off
ipmi.hp             0:off  1:off  2:off  3:off  4:off  5:off  6:off
irq_balancer        0:off  1:on   2:on   3:on   4:off  5:on   6:off
itcaIBMTivoliCommonAgent0 0:off  1:off  2:on   3:on   4:off  5:on   6:off
jboss               0:off  1:off  2:off  3:off  4:off  5:off  6:off
joystick            0:off  1:off  2:off  3:off  4:off  5:off  6:off
kadmind             0:off  1:off  2:off  3:off  4:off  5:off  6:off
kbd                 0:off  1:on   2:on   3:on   4:off  5:on   6:off  S:on
kdump               0:off  1:off  2:off  3:off  4:off  5:off  6:off
kpropd              0:off  1:off  2:off  3:off  4:off  5:off  6:off
krb524d             0:off  1:off  2:off  3:off  4:off  5:off  6:off
krb5kdc             0:off  1:off  2:off  3:off  4:off  5:off  6:off
ldap                0:off  1:off  2:off  3:on   4:off  5:on   6:off
lm_sensors          0:off  1:off  2:off  3:off  4:off  5:off  6:off
lw_agt              0:off  1:off  2:off  3:off  4:off  5:off  6:off
mdadmd              0:off  1:off  2:off  3:off  4:off  5:off  6:off
microcode           0:off  1:on   2:on   3:on   4:off  5:on   6:off  S:on
multipathd          0:off  1:off  2:off  3:off  4:off  5:off  6:off
mysql               0:off  1:off  2:off  3:off  4:off  5:off  6:off
network             0:off  1:off  2:on   3:on   4:off  5:on   6:off
nfs                 0:off  1:off  2:off  3:on   4:off  5:on   6:off
nfsboot             0:off  1:off  2:off  3:on   4:off  5:on   6:off
nfsserver           0:off  1:off  2:off  3:off  4:off  5:off  6:off
nohup.out           0:off  1:off  2:off  3:off  4:off  5:off  6:off
novell-zmd          0:off  1:off  2:off  3:off  4:off  5:off  6:off
nscd                0:off  1:off  2:off  3:on   4:off  5:on   6:off
ntp                 0:off  1:off  2:on   3:on   4:off  5:on   6:off
openct              0:off  1:off  2:off  3:off  4:off  5:off  6:off
opsware-agent       0:off  1:off  2:off  3:on   4:on   5:on   6:off
osddownt            0:off  1:off  2:off  3:on   4:on   5:on   6:off
ovpa                0:on   1:off  2:on   3:on   4:off  5:on   6:off
pcscd               0:off  1:off  2:off  3:off  4:off  5:off  6:off
pctl                0:off  1:off  2:on   3:on   4:off  5:on   6:off
portmap             0:off  1:off  2:off  3:on   4:off  5:on   6:off
postfix             0:off  1:off  2:off  3:on   4:off  5:on   6:off
powerd              0:off  1:off  2:off  3:off  4:off  5:off  6:off
```

```
powersaved              0:off  1:off  2:off  3:off  4:off  5:off  6:off
random                  0:off  1:off  2:on   3:on   4:off  5:on   6:off
raw                     0:off  1:off  2:off  3:off  4:off  5:off  6:off
resmgr                  0:off  1:off  2:on   3:on   4:off  5:on   6:off
rpasswdd                0:off  1:off  2:off  3:off  4:off  5:off  6:off
rpmconfigcheck          0:off  1:off  2:off  3:off  4:off  5:off  6:off
rrdtools                0:off  1:off  2:off  3:on   4:off  5:on   6:off
rsyncd                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
saslauthd               0:off  1:off  2:off  3:off  4:off  5:off  6:off
skeleton.compat         0:off  1:off  2:off  3:off  4:off  5:off  6:off
slurpd                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
smartd                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
smpppd                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
snmpd                   0:off  1:off  2:on   3:on   4:off  5:on   6:off
splash                  0:off  1:on   2:on   3:on   4:off  5:on   6:off  S:on
splash_early            0:off  1:off  2:on   3:on   4:off  5:on   6:off
sshd                    0:off  1:off  2:off  3:on   4:off  5:on   6:off
suseRegister            0:off  1:off  2:off  3:off  4:off  5:off  6:off
svcgssd                 0:off  1:off  2:off  3:off  4:off  5:off  6:off
syslog                  0:off  1:off  2:on   3:on   4:off  5:on   6:off
sysstat                 0:off  1:off  2:off  3:off  4:off  5:off  6:off
tecad_logfile           0:off  1:off  2:off  3:on   4:off  5:on   6:off
tomcat55                0:off  1:off  2:off  3:off  4:off  5:off  6:off
tomcat_eis              0:off  1:off  2:off  3:off  4:off  5:off  6:off
tpmgwproxy.sh           0:off  1:off  2:on   3:on   4:off  5:on   6:off
uc4_smgrp               0:off  1:off  2:off  3:on   4:off  5:on   6:off
uc4_smgrq1              0:off  1:off  2:off  3:on   4:off  5:on   6:off
xbis-ldap-tool          0:off  1:off  2:off  3:off  4:off  5:off  6:off
xdm                     0:off  1:off  2:off  3:off  4:off  5:on   6:off
xfs                     0:off  1:off  2:off  3:off  4:off  5:off  6:off
xinetd                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
ypbind                  0:off  1:off  2:off  3:off  4:off  5:off  6:off
xinetd based services:
        chargen:            off
        chargen-udp:        off
        daytime:            off
        daytime-udp:        off
        echo:               off
        echo-udp:           off
        netstat:            off
        rsync:              off
        servers:            off
        services:           off
        systat:             off
        time:               off
        time-udp:           off
```

2. Stop / Disable a service in all Linux boot runlevels or in a concrete one

As you should know already **in Linux there are multiple runlevels in which server can boot, under normal circumstances SuSE servers (as of time of writting) this article boots into *runlevel 3*, *if you'r'e unsure about the runlevel you can check it with **runlevel** command:*

```
suse:/etc/init.d# /sbin/runlevel
N 3
```

To stop a service on all possible boot runlevels - 1,2,3,4,5

```
suse:/etc/init.d# /sbin/chkconfig xinetd off
```

If you want to ***stop xinetd or any other service just for certain runlevels (lets say run-level 3,4,5)***:

```
suse:/etc/init.d# chkconfig --level 345 xinetd off
```

3. Start / Enable a service for a runlevel or all boot levels 1,2,3,4,5

To disable **boot.apparmor on all boot runlevels -** kernel enhancement that enabled to set a limited set of resources for services (*good for tightened security, but often creating issues with some external server*

configured services).

```
suse:/etc/init.d# chkconfig boot.apparmor off
```

Or for single boot modes again with **--level** option:

```
suse:/etc/init.d# chkconfig --level 345 boot.apparmor off
```

```
suse:/etc/init.d# chkconfig xfs off
```

4. SuSE Linux Package management zypper console tool

If you **need / wonder how to install /remove / update a service on a SuSE Linux server**, take a look at **zypper** tool.
zypper is *a command-line interface to ZYPP system management library.*

To install a package / service with zypper the syntax is very much like yum, for example:

```
suse: ~# zypper install vim -emacs
```

will remove emacs editor and install Vi Improved

The equivalent of **yum -y** Fedora command in *SuSE Enterprise Linux* is **--non-interactive** option

```
suse:~# zypper --non-interactive install
```

In SuSE it is *pretty annoying when you're asked for accepting licensing on some proprietary (external vendor) non-free software packages to get around this*:

```
suse:~# zypper patch --auto-agree-with-licenses
```

To *keep the SuSE server up2date - i.e. SLES equivalent of CentOS's yum update && yum upgrade*

```
suse:~# zypper list-patches
Loading repository data...
Reading installed packages...

Repository                      | Name      | Version | Category | Status
--------------------------------+-----------+---------+----------+-------
Updates for openSUSE 11.3 11.3-1.82 | lxsession | 2776    | security | needed
```

```
suse:~# zypper patch-check
Loading repository data...
Reading installed packages...
5 patches needed (1 security patch)
```

To look for a certain package with Zypper (equivalent of *yum search packagename*)

```
suse: ~# zypper search apache
```

To verify whether an RPM installed package dependecies are OK:

```
suse:~# zypper verify
```

The **equivalent of Fedora yum update command in SuSE (SLES)** are:

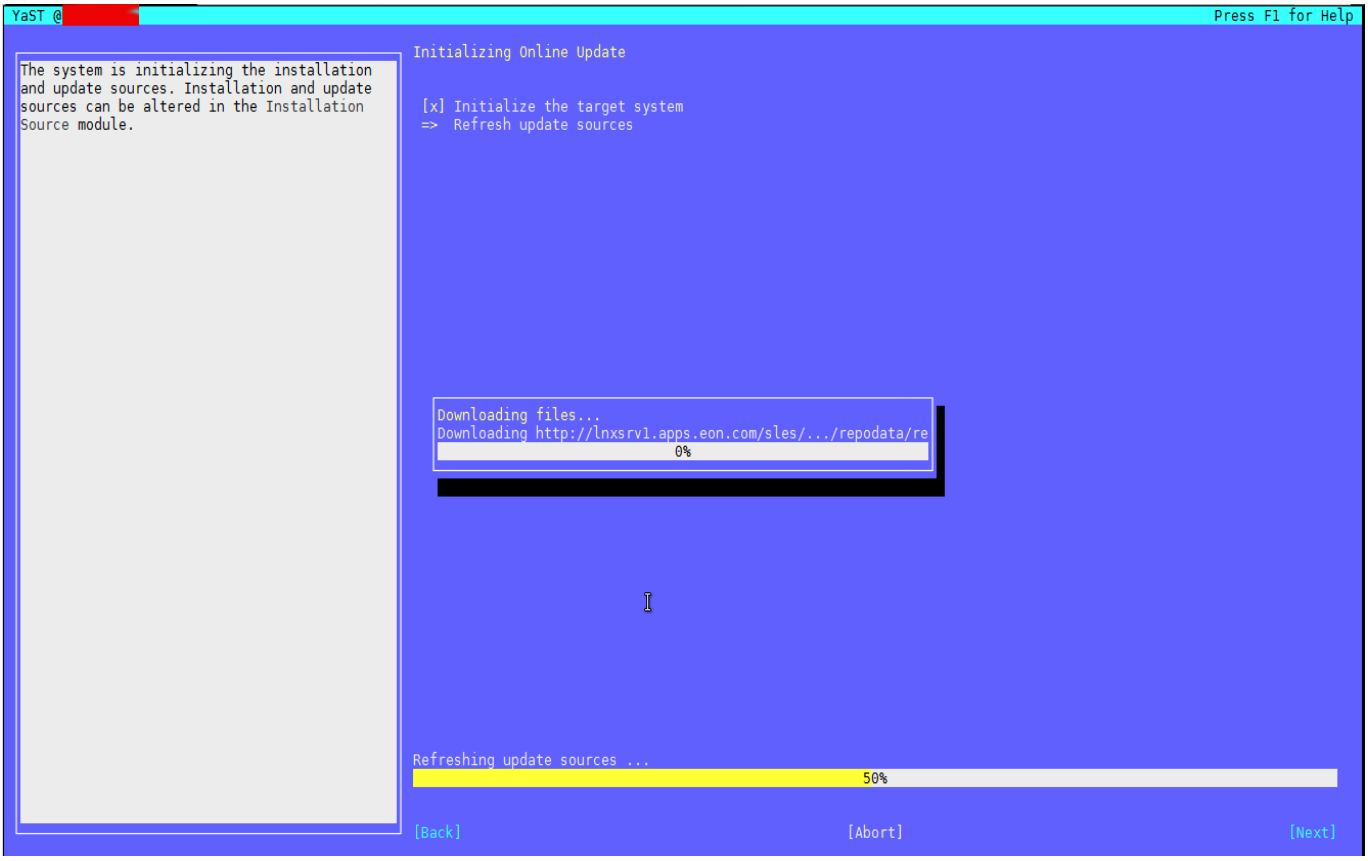
```
suse:~# zypper refresh
```

To force a complete refresh and rebuild of the database, including a forced download of raw metadata.

```
suse:~# zypper refresh -fdb
```

For people that are used to ncurses (midnight commander) like text interface you can also use **yoast2** (text GUI) package manager:

suse:~# **yoast2**



If a package is messed you can always go back and use good old *RPM (Redhat Package Manager)* to solve it.