

Grundlagen für Redhat / CentOS7

Basis Know-How Redhat Systems

System Aktualisieren / Warten

Grundlegende Systemwartung, durch Installation, von aktuellen Paketen und Upgraden des Kernels.

1. Upgrade System and Packages:

```
# yum -y update
```

Autocomplete in Shell aktivieren

Will man die automatische Syntax Erweiterung durch drücken von "Tab, Tab" einrichten, so müssen lediglich folgende zwei Pakete auf dem System installiert werden; und ein **relogin** nach der erfolgreichen Installation durchgeführt werden.

```
# yum install bash-completion.noarch  
# yum install bash-completion-extras.noarch
```

motd - Message of the day

Eigene motd (Login-Nachricht), nach dem Aufbau einer neuen SSH-Verbindung anzeigen lassen:

Add description and serial number to motd:

```
# echo '  
  hxxxxx  
  IT2 Debian Test Server (251xxxxx)  
  
  Debian Stable (i386) Linux  
  
  IT2 ApplicationServices  
  
  "akunamatata -> no worries mate .."  
' > /etc/motd
```

Systemverwaltung

Wichtige Tools, zum konfigurieren, abändern der System Einstellungen.

System Information

Möglichkeiten, um das eigene System ein bisschen zu analysieren;
Informationen abzurufen.

Show Uptime

```
# uptime
```

```
11:09:46 up 81 days, 17:13, 1 user, load average: 0.04, 0.10, 0.08
```

Show Kernel Version and Architecture

1. Display the current Kernel Version:

```
# uname -a
```

```
Linux vstif2.pnet.ch 3.10.0-514.21.1.el7.x86_64 #1 SMP Sat Apr 22  
02:41:35 EDT 2017 x86_64 x86_64 x86_64 GNU/Linux
```

2. Show System Server Release Version:

```
# cat /etc/redhat-release
```

```
Red Hat Enterprise Linux Server release 7.4 (Maipo)
```

Show Disk Partitions details

```
# df -h
```

```
Filesystem          Size  Used Avail Use% Mounted on  
/dev/mapper/vgsys-root 8.0G  2.1G  6.0G  26% /
```

| | | | | | |
|------------------------|------|------|------|-----|-----------------|
| devtmpfs | 910M | 0 | 910M | 0% | /dev |
| tmpfs | 920M | 0 | 920M | 0% | /dev/shm |
| tmpfs | 920M | 97M | 824M | 11% | /run |
| tmpfs | 920M | 0 | 920M | 0% | /sys/fs/cgroup |
| /dev/mapper/vgsys-var | 8.0G | 2.1G | 6.0G | 26% | /var |
| /dev/mapper/vgsys-opt | 9.5G | 184M | 9.3G | 2% | /opt |
| /dev/mapper/vgsys-tmp | 4.0G | 33M | 4.0G | 1% | /tmp |
| /dev/mapper/vgsys-home | 8.0G | 7.1G | 922M | 89% | /home |
| /dev/vda1 | 509M | 195M | 315M | 39% | /boot |
| tmpfs | 184M | 0 | 184M | 0% | /run/user/37198 |

Show all Disks and relation

Zeigt alle Disks an, auch welche die unpartitioniert sind, und nicht gemountet sind!

```
# lsblk
```

| NAME | MAJ:MIN | RM | SIZE | RO | TYPE | MOUNTPOINT |
|----------------------|---------|----|-------|----|------|------------|
| sda | 8:0 | 0 | 80G | 0 | disk | |
| ├sda1 | 8:1 | 0 | 512M | 0 | part | /boot |
| └sda2 | 8:2 | 0 | 79.5G | 0 | part | |
| ├vgsys-root | 253:0 | 0 | 8G | 0 | lvm | / |
| ├vgsys-swap | 253:1 | 0 | 2G | 0 | lvm | [SWAP] |
| ├vgsys-opt | 253:2 | 0 | 49.5G | 0 | lvm | /opt |
| ├vgsys-tmp | 253:3 | 0 | 4G | 0 | lvm | /tmp |
| ├vgsys-home | 253:4 | 0 | 8G | 0 | lvm | /home |
| └vgsys-var | 253:5 | 0 | 8G | 0 | lvm | /var |
| sdb | 8:16 | 0 | 80G | 0 | disk | |
| └vg_data01-lv_data01 | 253:6 | 0 | 80G | 0 | lvm | /data01 |
| sr0 | 11:0 | 1 | 1024M | 0 | rom | |

Show Open Ports

```
# netstat -napl
```

| Active Internet connections (servers and established) | | | | | | |
|---|--------|--------|-----------------|----------------------|--------|--|
| Proto | Recv-Q | Send-Q | Local Address | Foreign Address | State | |
| PID/Program name | | | | | | |
| tcp | 0 | 0 | 0.0.0.0:111 | 0.0.0.0:* | LISTEN | |
| 1/systemd | | | | | | |
| tcp | 0 | 0 | 10.1.100.181:22 | 0.0.0.0:* | LISTEN | |
| 900/sshd | | | | | | |
| tcp | 0 | 0 | 127.0.0.1:6010 | 0.0.0.0:* | LISTEN | |
| 17361/sshd: rebermi | | | | | | |
| tcp | 0 | 64 | 10.1.100.181:22 | 10.224.204.222:31477 | | |

```
ESTABLISHED 17358/sshd: rebermi
tcp        0      0 10.1.100.181:47656 172.27.130.12:61613
ESTABLISHED 17664/ruby
tcp        0      0 10.1.100.181:43540 172.27.49.65:9997
ESTABLISHED 15129/splunkd
tcp6       0      0 :::9000          :::*              LISTEN
29798/nsrexecd
tcp6       0      0 :::111           :::*              LISTEN
1/systemd
tcp6       0      0 :::9269          :::*              LISTEN
29798/nsrexecd
tcp6       0      0 ::1:6010         :::*              LISTEN
17361/sshd: rebermi
tcp6       0      0 :::7937          :::*              LISTEN
29798/nsrexecd
tcp6       0      0 :::7938          :::*              LISTEN
29798/nsrexecd
udp        0      0 0.0.0.0:111     0.0.0.0:*
6061/rpcbind
udp        0      0 10.1.100.181:123 0.0.0.0:*
26924/ntpd
udp        0      0 127.0.0.1:123   0.0.0.0:*
26924/ntpd
udp        0      0 0.0.0.0:123     0.0.0.0:*
26924/ntpd
udp        0      0 0.0.0.0:724     0.0.0.0:*
6061/rpcbind
udp6       0      0 :::111           :::*
6061/rpcbind
udp6       0      0 ::1:123          :::*
26924/ntpd
udp6       0      0 :::123           :::*
26924/ntpd
udp6       0      0 :::724           :::*
6061/rpcbind
udp6       0      0 :::7938          :::*
29798/nsrexecd
Active UNIX domain sockets (servers and established)
Proto RefCnt Flags      Type       State       I-Node     PID/Program name
Path
unix  2      [ ACC ]     STREAM    LISTENING   11522      1/systemd
/run/lvm/lvmetad.socket
unix  2      [ ACC ]     STREAM    LISTENING   11275      1/systemd
/run/systemd/private
unix  2      [ ACC ]     STREAM    LISTENING   14389      649/gssproxy
/run/gssproxy.sock
unix  2      [ ACC ]     STREAM    LISTENING   30777543   17361/sshd:
rebermi /tmp/ssh-v94wMvs2vd/agent.17361
unix  2      [ ACC ]     STREAM    LISTENING   14191      1/systemd
/var/run/dbus/system_bus_socket
```

| | | | | | | |
|---------------------------------|-----------------------------|---------|-----------|-----------|----------|------------------|
| unix | 2 | [ACC] | STREAM | LISTENING | 14388 | 649/gssproxy |
| /var/lib/gssproxy/default.sock | | | | | | |
| unix | 2 | [ACC] | STREAM | LISTENING | 14194 | 1/systemd |
| /var/run/rpcbind.sock | | | | | | |
| unix | 2 | [] | DGRAM | | 6831 | 1/systemd |
| /run/systemd/notify | | | | | | |
| unix | 2 | [] | DGRAM | | 6833 | 1/systemd |
| /run/systemd/cgroups-agent | | | | | | |
| unix | 2 | [ACC] | STREAM | LISTENING | 6842 | 1/systemd |
| /run/systemd/journal/stdout | | | | | | |
| unix | 2 | [ACC] | STREAM | LISTENING | 11451 | 1/systemd |
| /run/lvm/lvmpolld.socket | | | | | | |
| unix | 5 | [] | DGRAM | | 6845 | 1/systemd |
| /run/systemd/journal/socket | | | | | | |
| unix | 9 | [] | DGRAM | | 6847 | 1/systemd |
| /dev/log | | | | | | |
| unix | 2 | [] | DGRAM | | 11466 | 1/systemd |
| /run/systemd/shutdown | | | | | | |
| unix | 2 | [ACC] | SEQPACKET | LISTENING | 11518 | 1/systemd |
| /run/udev/control | | | | | | |
| unix | 2 | [] | DGRAM | | 14377 | 649/gssproxy |
| unix | 3 | [] | DGRAM | | 12481 | 494/systemd-udev |
| unix | 3 | [] | STREAM | CONNECTED | 14366 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | | |
| unix | 3 | [] | DGRAM | | 12480 | 494/systemd-udev |
| unix | 2 | [] | DGRAM | | 12461 | 494/systemd-udev |
| unix | 3 | [] | STREAM | CONNECTED | 14365 | 647/dbus-daemon |
| unix | 2 | [] | DGRAM | | 30777608 | 17397/sudo |
| unix | 3 | [] | STREAM | CONNECTED | 14402 | 647/dbus-daemon |
| unix | 3 | [] | STREAM | CONNECTED | 14102 | 626/auditd |
| unix | 3 | [] | STREAM | CONNECTED | 14258 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | | |
| unix | 2 | [] | DGRAM | | 25345848 | 647/dbus-daemon |
| unix | 3 | [] | STREAM | CONNECTED | 12107 | 481/lvmetad |
| unix | 3 | [] | STREAM | CONNECTED | 2557415 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | | |
| unix | 3 | [] | STREAM | CONNECTED | 25694704 | 15129/splunkd |
| unix | 3 | [] | STREAM | CONNECTED | 2557414 | 29726/crond |
| unix | 2 | [] | DGRAM | | 15260 | 662/polkitd |
| unix | 2 | [] | DGRAM | | 27844357 | 26924/ntpd |
| unix | 3 | [] | DGRAM | | 25694716 | 15134/[splunkd |
| pid= | | | | | | |
| unix | 3 | [] | STREAM | CONNECTED | 14376 | 1/systemd |
| unix | 3 | [] | STREAM | CONNECTED | 14758 | 661/systemd- |
| logind | | | | | | |
| unix | 3 | [] | STREAM | CONNECTED | 14393 | - |
| unix | 3 | [] | STREAM | CONNECTED | 14759 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | | |
| unix | 3 | [] | STREAM | CONNECTED | 14404 | 647/dbus-daemon |
| /var/run/dbus/system_bus_socket | | | | | | |
| unix | 3 | [] | DGRAM | | 25694715 | 15129/splunkd |

| | | | | | |
|---------------------------------|-----------------------------|--------|-----------|----------|------------------|
| unix 3 | [] | STREAM | CONNECTED | 16427 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | |
| unix 2 | [] | DGRAM | | 14793 | 661/systemd- |
| logind | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 25694714 | 15134/[splunkd |
| pid= | | | | | |
| unix 2 | [] | DGRAM | | 2557417 | 29726/crond |
| unix 3 | [] | STREAM | CONNECTED | 25694713 | 15129/splunkd |
| unix 3 | [] | STREAM | CONNECTED | 25694705 | 15129/splunkd |
| unix 3 | [] | STREAM | CONNECTED | 14395 | 649/gssproxy |
| /run/gssproxy.sock | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 12108 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | |
| unix 3 | [] | STREAM | CONNECTED | 18263 | 893/python |
| unix 3 | [] | STREAM | CONNECTED | 30777525 | 17361/sshd: |
| rebermi | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 18264 | 647/dbus-daemon |
| /var/run/dbus/system_bus_socket | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 14812 | 661/systemd- |
| logind | | | | | |
| unix 2 | [] | DGRAM | | 30777518 | 17358/sshd: |
| rebermi | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 14101 | 626/auditd |
| unix 3 | [] | STREAM | CONNECTED | 30777526 | 17358/sshd: |
| rebermi | | | | | |
| unix 2 | [] | DGRAM | | 14100 | 626/auditd |
| unix 3 | [] | STREAM | CONNECTED | 14403 | 647/dbus-daemon |
| unix 3 | [] | STREAM | CONNECTED | 14257 | 649/gssproxy |
| unix 3 | [] | STREAM | CONNECTED | 14813 | 647/dbus-daemon |
| /var/run/dbus/system_bus_socket | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 16426 | 900/sshd |
| unix 3 | [] | STREAM | CONNECTED | 16106 | 893/python |
| unix 3 | [] | STREAM | CONNECTED | 12451 | 494/systemd-udev |
| unix 3 | [] | STREAM | CONNECTED | 15061 | 647/dbus-daemon |
| /var/run/dbus/system_bus_socket | | | | | |
| unix 3 | [] | STREAM | CONNECTED | 12452 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | |
| unix 2 | [] | DGRAM | | 29758906 | 1/systemd |
| unix 3 | [] | STREAM | CONNECTED | 16107 | 459/systemd- |
| journal | /run/systemd/journal/stdout | | | | |
| unix 3 | [] | STREAM | CONNECTED | 15060 | 662/polkitd |

Show Installed Packages

```
# rpm -qa
```

```
pyserial-2.6-6.el7.noarch  
libblkid-2.23.2-43.el7.x86_64
```

```
tfm-rubygem-rails-i18n-4.0.8-1.el7sat.noarch
basesystem-10.0-7.el7.noarch
pulp-selinux-2.8.7.14-1.el7sat.noarch
gawk-4.0.2-4.el7_3.1.x86_64
tfm-rubygem-sprockets-rails-2.3.3-1.el7sat.noarch
libsndfile-1.0.25-10.el7.x86_64
libsemanage-2.5-8.el7.x86_64
tfm-rubygem-highline-1.6.21-4.el7sat.noarch
rubygem-bundler_ext-0.3.0-7.el7sat.noarch
fuse-2.9.2-8.el7.x86_64
tfm-rubygem-will_paginate-3.0.7-1.el7sat.noarch
popt-1.13-16.el7.x86_64
cairo-1.14.8-2.el7.x86_64
libmspack-0.5-0.5.alpha.el7.x86_64
tfm-rubygem-trollop-2.0-5.el7sat.noarch
libcap-ng-0.7.5-4.el7.x86_64
geronimo-jms-1.1.1-19.el7.noarch
python-libs-2.7.5-58.el7.x86_64
tfm-rubygem-facter-2.4.0-3.el7sat.x86_64
findutils-4.5.11-5.el7.x86_64
apache-commons-logging-1.1.2-7.el7.noarch
openldap-2.4.44-5.el7.x86_64
tfm-rubygem-awesome_print-1.0.2-13.el7sat.noarch
tomcat-7.0.76-2.el7.noarch
ruby-2.0.0.648-30.el7.x86_64
tfm-rubygem-formatador-0.2.1-9.el7sat.noarch
unzip-6.0-16.el7.x86_64
fuse-libs-2.9.2-8.el7.x86_64
tfm-rubygem-fog-vsphere-0.6.3-1.el7sat.noarch
qrencode-libs-3.4.1-3.el7.x86_64
openssl-1.0.2k-8.el7.x86_64
redhat-release-server-7.4-18.el7.x86_64
tfm-rubygem-activerecord-session_store-0.1.2-1.el7sat.noarch
cracklib-2.9.0-11.el7.x86_64
python-pulp-oid_validation-2.8.7.14-1.el7sat.noarch
libcgroup-0.41-13.el7.x86_64
tfm-rubygem-hammer_cli_katello-0.0.22.29-1.el7sat.noarch
libutempter-1.1.6-4.el7.x86_64
puppet-3.8.6-2.el7sat.noarch
setroubleshoot-plugins-3.0.65-1.el7.noarch
tfm-rubygem-ancestry-2.0.0-4.el7sat.noarch
..
```

Show Contents of one Installed Package

```
rpm -ql PACKAGENAME
```

```
# rpm -ql httpd
```

```
/etc/httpd
/etc/httpd/conf
/etc/httpd/conf.d
/etc/httpd/conf.d/README
/etc/httpd/conf.d/autoindex.conf
/etc/httpd/conf.d/userdir.conf
/etc/httpd/conf.d/welcome.conf
/etc/httpd/conf.modules.d
/etc/httpd/conf.modules.d/00-base.conf
/etc/httpd/conf.modules.d/00-dav.conf
/etc/httpd/conf.modules.d/00-lua.conf
/etc/httpd/conf.modules.d/00-mpm.conf
/etc/httpd/conf.modules.d/00-proxy.conf
/etc/httpd/conf.modules.d/00-systemd.conf
/etc/httpd/conf.modules.d/01-cgi.conf
/etc/httpd/conf/httpd.conf
/etc/httpd/conf/magic
/etc/httpd/logs
/etc/httpd/modules
/etc/httpd/run
/etc/logrotate.d/httpd
/etc/sysconfig/htcacheclean
/etc/sysconfig/httpd
/run/httpd
/run/httpd/htcacheclean
/usr/lib/systemd/system/htcacheclean.service
/usr/lib/systemd/system/httpd.service
/usr/lib/tmpfiles.d/httpd.conf
/usr/lib64/httpd
/usr/lib64/httpd/modules
/usr/lib64/httpd/modules/mod_access_compat.so
/usr/lib64/httpd/modules/mod_actions.so
/usr/lib64/httpd/modules/mod_alias.so
/usr/lib64/httpd/modules/mod_allowmethods.so
/usr/lib64/httpd/modules/mod_asis.so
..
```

Last update: **2017/08/22 10:35**