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Version	cat /etc/redhat-release
カーネルバージョン情報	uname -r

インストール時の手元メモを参照

```
[root@localhost ~]# yum -v grouplist
無効になっているため、プラグイン「rhnplugin」は読み込みません
プラグイン「langpacks」を読み込んでいます
プラグイン「product-id」を読み込んでいます
プラグイン「search-disabled-repos」を読み込んでいます
プラグイン「subscription-manager」を読み込んでいます
Adding ja_JP.UTF-8 to language list
Updating Subscription Management repositories.
Config time: 4.979
Yum version: 3.4.3
There is no installed groups file.
Maybe run: yum groups mark convert (see man yum)
Setting up Package Sacks
pkgsack time: 0.024
group time: 0.180
Available Environment Groups:
   最小限のインストール (minimal)
   インフラストラクチャーサーバー (infrastructure-server-environment)
   ファイルとプリントサーバー (file-print-server-environment)
   Cinnamon デスクトップ (cinnamon-desktop-environment)
   MATE デスクトップ (mate-desktop-environment)
   ベーシック Web サーバー (web-server-environment)
   仮想化ホスト (virtualization-host-environment)
   サーバー (GUI 使用) (graphical-server-environment)
利用可能なグループ
   Cinnamon (cinnamon-desktop)
   Eメールサーバー (mail-server)
   Fedora パッケージャ (fedora-packager)
   Haskell のサポート (haskell)
   KDE デスクトップ (kde-desktop)
   LXQt Desktop (lxqt-desktop)
   MATE (mate-desktop)
   Milkymist (milkymist)
   NIS サーバー (network-server)
   Officeスイート/生産性 (office-suite)
   Smart card のサポート (smart-card)
   TurboGears アプリケーションフレームワーク (turbogears)
   Web Servlet エンジンのサポート (web-servlet)
   Web サーバー (web-server)
   Xfce (xfce-desktop)
   インターネットアプリケーション (internet-applications)
   グラフィカル管理ツール (graphical-admin-tools)
   グラフィック作成ツール (graphics)
   システム管理 (system-management)
   システム管理ツール (system-admin-tools)
   セキュリティーツール (security-tools)
   テキストのインターネットツール (console-internet)
   ネットワークツール (network-tools)
   ハードウェア監視ユーティリティ (hardware-monitoring)
   バックアップクライアント (backup-client)
   パフォーマンスツール (performance)
   フォント (fonts)
   ベース (base)
   レガシーな UNIX 互換性 (legacy-unix)
   互換性ライブラリー (compat-libraries)
   入力メソッド (input-methods)
   技術文書の執筆 (technical-writing)
   教育用ソフトウェア (education)
   汎用デスクトップ (general-desktop)
   科学技術 サポート (scientific)
   開発ツール (development)
   電子ラボラトリ (electronic-lab)
完了
```

```
[root@localhost ~]# yum -v group info graphical-server-environment
無効になっているため、プラグイン「rhnplugin」は読み込みません
プラグイン「langpacks」を読み込んでいます
プラグイン「product-id」を読み込んでいます
プラグイン「search-disabled-repos」を読み込んでいます
プラグイン「subscription-manager」を読み込んでいます
Adding ja_JP.UTF-8 to language list
Updating Subscription Management repositories.
Config time: 5.035
Yum version: 3.4.3
There is no installed groups file.
Maybe run: yum groups mark convert (see man yum)
Setting up Package Sacks
pkgsack time: 0.024
group time: 0.179

Environment Group: サーバー (GUI 使用)
 Environment-Id: graphical-server-environment
 説明: GUI を使用してネットワークインフラストラクチャのサービスを動作させるサーバーです。
 Mandatory Groups:
   +base
   +core
   +desktop-debugging
   +dial-up
   +fonts
   +gnome-desktop
   +guest-agents
   +guest-desktop-agents
   +hardware-monitoring
   +input-methods
   +internet-browser
   +multimedia
   +print-client
   +x11
 Optional Groups:
   +backup-server
   +directory-server
   +dns-server
   +file-server
   +ftp-server
   +ha
   +hardware-monitoring
   +identity-management-server
   +infiniband
   +java-platform
   +kde-desktop
   +large-systems
   +load-balancer
   +mail-server
   +mainframe-access
   +mariadb
   +network-file-system-client
   +performance
   +postgresql
   +print-server
   +remote-desktop-clients
   +remote-system-management
   +resilient-storage
   +virtualization-client
   +virtualization-hypervisor
   +virtualization-tools
```

```
[root@localhost ~]# yum -v groups info base
無効になっているため、プラグイン「rhnplugin」は読み込みません
プラグイン「langpacks」を読み込んでいます
プラグイン「product-id」を読み込んでいます
プラグイン「search-disabled-repos」を読み込んでいます
プラグイン「subscription-manager」を読み込んでいます
Adding ja_JP.UTF-8 to language list
Updating Subscription Management repositories.
Config time: 5.003
Yum version: 3.4.3
There is no installed groups file.
Maybe run: yum groups mark convert (see man yum)
Setting up Package Sacks
pkgsack time: 0.024
group time: 0.179

グループ: ベース
 グループ ID: base
rpmdb time: 0.000
 説明: Enterprise Linux の標準インストール
 強制的なパッケージ:
    acl-2.2.51-14.el7.x86_64                                @anaconda/7.5
    at-3.1.13-23.el7.x86_64                                 @anaconda/7.5
    attr-2.4.46-13.el7.x86_64                               @anaconda/7.5
    bc-1.06.95-13.el7.x86_64                                @anaconda/7.5
    32:bind-utils-9.9.4-61.el7_5.1.x86_64                   @rhel-7-server-rpms/7.5
    cpio-2.11-27.el7.x86_64                                 @anaconda/7.5
    crda-3.13_2016.02.08-1.el7.x86_64                       @anaconda/7.5
    crontabs-1.11-6.20121102git.el7.noarch                  @anaconda/7.5
    cyrus-sasl-plain-2.1.26-23.el7.i686                     rhel-7-server-rpms
    cyrus-sasl-plain-2.1.26-23.el7.x86_64                   @anaconda/7.5
    1:dbus-1.10.24-7.el7.x86_64                             @anaconda/7.5
    ed-1.9-4.el7.x86_64                                     @anaconda/7.5
    file-5.11-33.el7.x86_64                                 @anaconda/7.5
    logrotate-3.8.6-15.el7.x86_64                           @anaconda/7.5
    lsof-4.87-5.el7.x86_64                                  @anaconda/7.5
    man-db-2.6.3-11.el7.x86_64                              @rhel-7-server-rpms
    net-tools-2.0-0.22.20131004git.el7.x86_64               @anaconda/7.5
    ntsysv-1.7.4-1.el7.x86_64                               @anaconda/7.5
    pciutils-3.5.1-3.el7.x86_64                             @anaconda/7.5
    psacct-6.6.1-13.el7.x86_64                              @anaconda/7.5
    1:quota-4.01-17.el7.x86_64                              @anaconda/7.5
    redhat-indexhtml-7-11.el7_0.noarch                      @anaconda/7.5
    setserial-2.17-33.el7.x86_64                            @anaconda/7.5
    3:traceroute-2.0.22-2.el7.x86_64                        @anaconda/7.5
    usb_modeswitch-2.5.1-1.el7.x86_64                       @anaconda/7.5
 標準パッケージ:
    abrt-addon-ccpp-2.1.11-50.el7.x86_64                    @anaconda/7.5
    abrt-addon-python-2.1.11-50.el7.x86_64                  @anaconda/7.5
    abrt-cli-2.1.11-50.el7.x86_64                           @anaconda/7.5
    abrt-console-notification-2.1.11-50.el7.x86_64          @anaconda/7.5
    1:bash-completion-2.1-6.el7.noarch                      @anaconda/7.5
    blktrace-1.0.5-8.el7.x86_64                             @anaconda/7.5
   +bpftool-3.10.0-1160.11.1.el7.x86_64                     rhel-7-server-rpms
    bridge-utils-1.5-9.el7.x86_64                           @anaconda/7.5
    bzip2-1.0.6-13.el7.x86_64                               @anaconda/7.5
    chrony-3.2-2.el7.x86_64                                 @anaconda/7.5
    cryptsetup-1.7.4-4.el7.x86_64                           @anaconda/7.5
    dmraid-1.0.0.rc16-28.el7.i686                           rhel-7-server-rpms
    dmraid-1.0.0.rc16-28.el7.x86_64                         @anaconda/7.5
    dosfstools-3.0.20-9.el7.x86_64                          @anaconda/7.5
    2:ethtool-4.8-7.el7.x86_64                              @anaconda/7.5
    fprintd-pam-0.5.0-4.0.el7_0.x86_64                      @anaconda/7.5
```

fprintd-pam-0.8.1-2.el7.i686	rhel-7-server-rpms
gnupg2-2.0.22-5.el7_5.x86_64	@rhel-7-server-rpms/7.5
hunspell-1.3.2-15.el7.x86_64	@anaconda/7.5
hunspell-1.3.2-16.el7.i686	rhel-7-server-rpms
hunspell-en-0.20121024-6.el7.noarch	@anaconda/7.5
kmod-kvdo-6.1.0.181-17.el7_5.x86_64	@rhel-7-server-rpms/7.5
kpatch-0.4.0-3.el7.noarch	@anaconda/7.5
ledmon-0.80-2.el7.x86_64	@anaconda/7.5
libaio-0.3.109-13.el7.i686	rhel-7-server-rpms
libaio-0.3.109-13.el7.x86_64	@anaconda/7.5
libreport-plugin-mailx-2.1.11-40.el7.x86_64	@anaconda/7.5
libstoragemgmt-1.6.1-2.el7.x86_64	@anaconda/7.5
libstoragemgmt-1.8.1-1.el7.i686	rhel-7-server-rpms
7:lvm2-2.02.187-6.el7_9.3.x86_64	@rhel-7-server-rpms
man-pages-3.53-5.el7.noarch	@anaconda/7.5
man-pages-overrides-7.0.0-2.el7.noarch	rhel-7-server-rpms
man-pages-overrides-7.5.2-1.el7.x86_64	@anaconda/7.5
mdadm-4.0-13.el7.x86_64	@anaconda/7.5
mlocate-0.26-8.el7.x86_64	@anaconda/7.5
2:mtr-0.85-7.el7.x86_64	@anaconda/7.5
nano-2.3.1-10.el7.x86_64	@anaconda/7.5
ntpdate-4.2.6p5-28.el7.x86_64	@anaconda/7.5
pinfo-0.6.10-9.el7.x86_64	@anaconda/7.5
plymouth-0.8.9-0.31.20140113.el7.x86_64	@anaconda/7.5
pm-utils-1.4.1-27.el7.x86_64	@anaconda/7.5
rdate-1.4-25.el7.x86_64	@anaconda/7.5
rfkill-0.4-9.el7.x86_64	@anaconda/7.5
rhnsd-5.0.13-10.el7.x86_64	@anaconda/7.5
rng-tools-5-13.el7.x86_64	@anaconda/7.5
rsync-3.1.2-4.el7.x86_64	@anaconda/7.5
scl-utils-20130529-18.el7_4.x86_64	@anaconda/7.5
setuptool-1.19.11-8.el7.x86_64	@anaconda/7.5
1:smartmontools-6.5-1.el7.x86_64	@anaconda/7.5
sos-3.5-9.el7_5.noarch	@rhel-7-server-rpms/7.5
sssd-client-1.16.0-19.el7_5.8.x86_64	@rhel-7-server-rpms/7.5
sssd-client-1.16.5-10.el7_9.6.i686	rhel-7-server-rpms
strace-4.12-6.el7.x86_64	@anaconda/7.5
subscription-manager-plugin-container-1.20.11-1.el7_5.x86_64	@rhel-7-server-rpms/7.5
sysstat-10.1.5-13.el7.x86_64	@anaconda/7.5
systemtap-runtime-3.2-8.el7_5.x86_64	@rhel-7-server-rpms/7.5
14:tcpdump-4.9.2-3.el7.x86_64	@anaconda/7.5
tcsh-6.18.01-15.el7.x86_64	@anaconda/7.5
teamd-1.27-4.el7.x86_64	@anaconda/7.5
teamd-1.29-3.el7.i686	rhel-7-server-rpms
time-1.7-45.el7.x86_64	@anaconda/7.5
unzip-6.0-21.el7.x86_64	@rhel-7-server-rpms
usbutils-007-5.el7.x86_64	@anaconda/7.5
vdo-6.1.0.168-18.x86_64	@rhel-7-server-rpms/7.5
2:vim-enhanced-7.4.629-8.el7_9.x86_64	@rhel-7-server-rpms
virt-what-1.18-4.el7.x86_64	@anaconda/7.5
wget-1.14-18.el7_6.1.x86_64	@rhel-7-server-rpms
which-2.20-7.el7.x86_64	@anaconda/7.5
words-3.0-22.el7.noarch	@anaconda/7.5
xfsdump-3.1.7-1.el7.x86_64	@anaconda/7.5
xz-5.2.2-1.el7.x86_64	@anaconda/7.5
yum-langpacks-0.4.2-7.el7.noarch	@anaconda/7.5
yum-utils-1.1.31-54.el7_8.noarch	@rhel-7-server-rpms
zip-3.0-11.el7.x86_64	@anaconda/7.5

オプション パッケージ:

PyPAM-0.5.0-19.el7.x86_64	rhel-7-server-rpms
acpid-2.0.19-9.el7.x86_64	rhel-7-server-rpms
audispd-plugins-2.8.5-4.el7.x86_64	rhel-7-server-rpms
augeas-1.4.0-10.el7.x86_64	rhel-7-server-rpms
1:bash-completion-2.1-6.el7.noarch	@anaconda/7.5

bcc-0.10.0-1.el7.x86_64	rhel-7-server-rpms
brltty-4.5-16.el7.x86_64	@anaconda/7.5
1:ceph-common-10.2.5-4.el7.x86_64	rhel-7-server-rpms
cryptsetup-reencrypt-2.0.3-6.el7.x86_64	rhel-7-server-rpms
daxio-1.5.1-2.1.el7.x86_64	rhel-7-server-rpms
denyhosts	
device-mapper-persistent-data-0.8.5-3.el7_9.2.x86_64	@rhel-7-server-rpms
dos2unix-6.0.3-7.el7.x86_64	rhel-7-server-rpms
dumpet-2.1-8.el7.x86_64	rhel-7-server-rpms
environment-modules-3.2.10-10.el7.x86_64	rhel-7-server-rpms
fwupd-1.0.8-5.el7.i686	rhel-7-server-rpms
fwupd-1.0.8-5.el7.x86_64	rhel-7-server-rpms
fwupdate-12-6.el7_8.x86_64	rhel-7-server-rpms
genisoimage-1.1.11-23.el7.x86_64	@anaconda/7.5
ghex	
gpm-1.20.7-6.el7.x86_64	rhel-7-server-rpms
i2c-tools-3.1.0-13.el7.x86_64	rhel-7-server-rpms
ima-evm-utils-1.1-3.el7.i686	rhel-7-server-rpms
ima-evm-utils-1.1-3.el7.x86_64	rhel-7-server-rpms
insights-client-3.1.1-1.el7_9.noarch	rhel-7-server-rpms
kabi-yum-plugins-1.0-3.el7.noarch	rhel-7-server-rpms
libatomic-4.8.5-44.el7.i686	rhel-7-server-rpms
libatomic-4.8.5-44.el7.x86_64	rhel-7-server-rpms
libcgroup-0.41-15.el7.x86_64	@anaconda/7.5
libcgroup-0.41-21.el7.i686	rhel-7-server-rpms
libcgroup-tools-0.41-21.el7.x86_64	rhel-7-server-rpms
libitm-4.8.5-44.el7.i686	rhel-7-server-rpms
libitm-4.8.5-44.el7.x86_64	rhel-7-server-rpms
libstoragemgmt-arcconf-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-hpsa-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-local-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-megaraid-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-nfs-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-nfs-plugin-clibs-1.8.1-1.el7.x86_64	rhel-7-server-rpms
libstoragemgmt-nstor-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-smis-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-targetd-plugin-1.8.1-1.el7.noarch	rhel-7-server-rpms
libstoragemgmt-udev-1.8.1-1.el7.x86_64	rhel-7-server-rpms
linuxptp-2.0-2.el7.x86_64	rhel-7-server-rpms
logwatch-7.4.0-35.20130522svn140.el7_5.noarch	rhel-7-server-rpms
mkbootdisk-1.5.5-11.el7.x86_64	rhel-7-server-rpms
mtools-4.0.18-5.el7.x86_64	@anaconda/7.5
ncurses-term-5.9-14.20130511.el7_4.noarch	rhel-7-server-rpms
ntp-4.2.6p5-29.el7_8.2.x86_64	rhel-7-server-rpms
nvme-cli-1.8.1-3.el7.x86_64	rhel-7-server-rpms
nvmetcli-0.6-1.el7.noarch	rhel-7-server-rpms
oddjob-0.31.5-4.el7.x86_64	@anaconda/7.5
p7zip-16.02-10.el7.x86_64	epel
pax-3.4-19.el7.x86_64	rhel-7-server-rpms
perl-gettext-1.05-28.el7.x86_64	rhel-7-server-rpms
prelink-0.5.0-9.el7.x86_64	rhel-7-server-rpms
python-subprocess32	
python-volume_key-0.3.9-9.el7.x86_64	rhel-7-server-rpms
redhat-lsb-core-4.1-27.el7.i686	rhel-7-server-rpms
redhat-lsb-core-4.1-27.el7.x86_64	rhel-7-server-rpms
redhat-upgrade-dracut-0.8.10-1.el7.x86_64	rhel-7-server-rpms
2:redhat-upgrade-tool-0.9.5-1.el7.noarch	rhel-7-server-rpms
rsyslog-gnutls-8.24.0-57.el7_9.x86_64	rhel-7-server-rpms
rsyslog-gssapi-8.24.0-57.el7_9.x86_64	rhel-7-server-rpms
rsyslog-kafka-8.24.0-57.el7_9.x86_64	rhel-7-server-rpms
rsyslog-relp-8.24.0-57.el7_9.x86_64	rhel-7-server-rpms
sgpio-1.2.0.10-13.el7.x86_64	@anaconda/7.5
sos-collector-1.8-2.el7_8.noarch	rhel-7-server-rpms
sox-14.4.1-6.el7.x86_64	@anaconda/7.5

sox-14.4.1-7.el7.i686	rhel-7-server-rpms
squashfs-tools-4.3-0.21.gitaae0aff4.el7.x86_64	rhel-7-server-rpms
star-1.5.2-13.el7.x86_64	rhel-7-server-rpms
subscription-manager-migration-1.24.45-1.el7_9.x86_64	rhel-7-server-rpms
subscription-manager-migration-data-2.0.56-1.el7.noarch	rhel-7-server-rpms
tmpwatch-2.11-6.el7.x86_64	rhel-7-server-rpms
udftools-1.0.0b3-26.el7.x86_64	rhel-7-server-rpms
usbguard-0.7.4-3.el7.i686	rhel-7-server-rpms
usbguard-0.7.4-3.el7.x86_64	rhel-7-server-rpms
uuidd-2.23.2-65.el7.x86_64	rhel-7-server-rpms
volume_key-0.3.9-9.el7.x86_64	rhel-7-server-rpms
wodim-1.1.11-23.el7.x86_64	@anaconda/7.5
1:x86info-1.30-6.el7.x86_64	rhel-7-server-rpms
yum-plugin-aliases-1.1.31-54.el7_8.noarch	rhel-7-server-rpms
yum-plugin-changelog-1.1.31-54.el7_8.noarch	rhel-7-server-rpms
yum-plugin-tmprepo-1.1.31-54.el7_8.noarch	rhel-7-server-rpms
yum-plugin-verify-1.1.31-54.el7_8.noarch	rhel-7-server-rpms
yum-plugin-versionlock-1.1.31-54.el7_8.noarch	rhel-7-server-rpms
zsh-5.0.2-34.el7_8.2.x86_64	rhel-7-server-rpms

条件付パッケージ:

+rubygem-abrt-0.3.0-1.el7.noarch	rhel-7-server-rpms

```
[root@RHEL75 yum.repos.d]# fdisk -l

Disk /dev/sda: 750.2 GB, 750156374016 bytes, 1465149168 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O サイズ (最小 / 推奨): 512 バイト / 512 バイト
Disk label type: dos
ディスク識別子: 0x2d1f9fe7

デバイス ブート      始点        終点     ブロック   Id  システム
/dev/sda1   *        2048   965738487   482868220    7  HPFS/NTFS/exFAT
/dev/sda2       965738496   967835647     1048576   83  Linux
/dev/sda3       967835648  1465147391   248655872   8e  Linux LVM

Disk /dev/mapper/rhel-root: 53.7 GB, 53687091200 bytes, 104857600 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O サイズ (最小 / 推奨): 512 バイト / 512 バイト


Disk /dev/mapper/rhel-swap: 4160 MB, 4160749568 bytes, 8126464 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O サイズ (最小 / 推奨): 512 バイト / 512 バイト


Disk /dev/mapper/rhel-home: 196.8 GB, 196767383552 bytes, 384311296 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O サイズ (最小 / 推奨): 512 バイト / 512 バイト
```

```
[root@RHEL75 yum.repos.d]# vgdisplay

  --- Volume group ---
  VG Name               rhel
  System ID
  Format                lvm2
  Metadata Areas        1
  Metadata Sequence No  4
  VG Access             read/write
  VG Status             resizable
  MAX LV                0
  Cur LV                3
  Open LV               3
  Max PV                0
  Cur PV                1
  Act PV                1
  VG Size               237.13 GiB
  PE Size               4.00 MiB
  Total PE              60706
  Alloc PE / Size       60705 / <237.13 GiB
  Free  PE / Size       1 / 4.00 MiB
  VG UUID               KyZnDp-Jjqy-iVqf-bPBh-2LjO-YdSe-UfqQEh
```

```
[root@RHEL75 yum.repos.d]# lvdisplay

  --- Logical volume ---
  LV Path                /dev/rhel/swap
  LV Name                swap
  VG Name                rhel
  LV UUID                jr6vXD-c3uu-NctM-ZwHw-a8Yg-rysZ-bVcocU
  LV Write Access        read/write
  LV Creation host, time rhel75, 2020-12-12 08:45:21 +0900
  LV Status              available
  # open                 2
  LV Size                <3.88 GiB
  Current LE             992
  Segments               1
  Allocation             inherit
  Read ahead sectors     auto
  - currently set to     8192
  Block device           253:1

  --- Logical volume ---
  LV Path                /dev/rhel/home
  LV Name                home
  VG Name                rhel
  LV UUID                n2yph9-XMgM-ADi4-hWtj-AgKx-s6MO-SBD3dt
  LV Write Access        read/write
  LV Creation host, time rhel75, 2020-12-12 08:45:22 +0900
  LV Status              available
  # open                 1
  LV Size                183.25 GiB
  Current LE             46913
  Segments               1
  Allocation             inherit
  Read ahead sectors     auto
  - currently set to     8192
  Block device           253:2

  --- Logical volume ---
  LV Path                /dev/rhel/root
  LV Name                root
  VG Name                rhel
  LV UUID                4BiY1b-0DkM-fFKP-hA2L-eM5o-dQnG-vOf11Z
  LV Write Access        read/write
  LV Creation host, time rhel75, 2020-12-12 08:45:24 +0900
  LV Status              available
  # open                 1
  LV Size                50.00 GiB
  Current LE             12800
  Segments               1
  Allocation             inherit
  Read ahead sectors     auto
  - currently set to     8192
  Block device           253:0
```

```
[root@RHEL75 ~]# df -m
ファイルシス          1M-ブロック  使用 使用可 使用% マウント位置
/dev/mapper/rhel-root       51175  9575  41601   19% /
devtmpfs                     1877     0   1877    0% /dev
tmpfs                        1895     1   1895    1% /dev/shm
tmpfs                        1895    10   1885    1% /run
tmpfs                        1895     0   1895    0% /sys/fs/cgroup
/dev/mapper/rhel-home      187561   169 187393    1% /home
/dev/sda2                    1014   227    788   23% /boot
tmpfs                         379     1    379    1% /run/user/42
tmpfs                         379     1    379    1% /run/user/1000
[root@RHEL75 ~]#
```

```
[root@localhost ~]# ls -la /

lrwxrwxrwx.   1 root root     7 12月 12  2020 /bin -> usr/bin
dr-xr-xr-x.   4 root root  4096 12月 12  2020 /boot
drwxr-xr-x.  21 root root  3740  1月  1 00:01 /dev
drwxr-xr-x. 141 root root 12288  1月  1 00:01 /etc
drwxr-xr-x.   3 root root    22 12月 12  2020 /home
lrwxrwxrwx.   1 root root     7 12月 12  2020 /lib -> usr/lib
lrwxrwxrwx.   1 root root     9 12月 12  2020 /lib64 -> usr/lib64
drwxr-xr-x.   2 root root     6 12月 15  2017 /media
drwxr-xr-x.   2 root root     6 12月 15  2017 /mnt
drwxr-xr-x.   3 root root    16 12月 12  2020 /opt
dr-xr-xr-x. 263 root root     0  1月  1  2007 /proc
dr-xr-x---.   9 root root  4096  1月  1 00:46 /root
drwxr-xr-x.  42 root root  1380  1月  1 01:45 /run
lrwxrwxrwx.   1 root root     8 12月 12  2020 /sbin -> usr/sbin
drwxr-xr-x.   2 root root     6 12月 15  2017 /srv
dr-xr-xr-x.  13 root root     0  1月  1 00:00 /sys
drwxrwxrwt.  23 root root  4096  1月  1 00:50 /tmp
drwxr-xr-x.  13 root root   155 12月 12  2020 /usr
drwxr-xr-x.  20 root root   282 12月 12  2020 /var
```

ファイヤーウォール

[root@RHEL75 yum.repos.d]# firewall-cmd --state https://access.redhat.com/d
running

telnet

[root@RHEL75 yum.repos.d]# yum list installed | grep tehttps://qiita.com/montblanc
[root@RHEL75 yum.repos.d]# →インストールされていない

起動時ランレベル

```
[root@RHEL75 yum.repos.d]# cat /etc/inittab
# inittab is no longer used when using systemd.
#
# ADDING CONFIGURATION HERE WILL HAVE NO EFFECT ON YOUR SYSTEM.
#
# Ctrl-Alt-Delete is handled by /usr/lib/systemd/system/ctrl-alt-del.target
#
# systemd uses 'targets' instead of runlevels. By default, there are two main targets:
#
# multi-user.target: analogous to runlevel 3
# graphical.target: analogous to runlevel 5
#
# To view current default target, run:
# systemctl get-default
#
# To set a default target, run:
# systemctl set-default TARGET.target
#
```

[root@RHEL75 yum.repos.d]# runlevel →/etc/inittabには何も記載がない
N 5 https://www.infraeye.co

? Ctrl-alt-del

```
[root@RHEL75 yum.repos.d]# cat /usr/lib/systemd/system/ctrl-alt-del.target
#  This file is part of systemd.
#
#  systemd is free software; you can redistribute it and/or modify it
#  under the terms of the GNU Lesser General Public License as published by
#  the Free Software Foundation; either version 2.1 of the License, or
#  (at your option) any later version.

[Unit]
Description=Reboot
Documentation=man:systemd.special(7)
DefaultDependencies=no
Requires=systemd-reboot.service
After=systemd-reboot.service
AllowIsolate=yes
JobTimeoutSec=30min
JobTimeoutAction=reboot-force
```

```
[Install]
Alias=ctrl-alt-del.target

[root@RHEL75 ~]# systemctl list-unit-files --no-pager | grep ctrl-alt-del.target
ctrl-alt-del.target                       disabled

[root@RHEL75 ~]# systemctl mask ctrl-alt-del.target
Created symlink from /etc/systemd/system/ctrl-alt-del.target to /dev/null.
[root@RHEL75 ~]#
```

【確認】

```
[root@RHEL75 ~]# systemctl list-unit-files --no-pager | grep ctrl-alt-del.target
ctrl-alt-del.target                       masked
[root@RHEL75 ~]#
```

? GRUB

```
[root@RHEL75 yum.repos.d]# grep "^menuentry" /boot/grub2/grub.cfg | cut -d "'" -f
Red Hat Enterprise Linux Server (3.10.0-862.14.4.el7.x86_64) 7.5 (Maipo)
Red Hat Enterprise Linux Server (3.10.0-862.el7.x86_64) 7.5 (Maipo)
Red Hat Enterprise Linux Server (0-rescue-a124834d5d3e49b5a24329553e68460c) 7

[root@RHEL75 yum.repos.d]# cat /etc/default/grub
GRUB_TIMEOUT=5
GRUB_DISTRIBUTOR="$(sed 's, release .*$,,g' /etc/system-release)"
GRUB_DEFAULT=saved
GRUB_DISABLE_SUBMENU=true
GRUB_TERMINAL_OUTPUT="console"
GRUB_CMDLINE_LINUX="crashkernel=auto rd.lvm.lv=rhel/root rd.lvm.lv=rhel/swap r
GRUB_DISABLE_RECOVERY="true"
```

kdump

```
[root@RHEL75 yum.repos.d]# cat /etc/kdump.conf
# This file contains a series of commands to perform (in order) in the kdump
# kernel after a kernel crash in the crash kernel(1st kernel) has happened.
#
# Directives in this file are only applicable to the kdump initramfs, and have
# no effect once the root filesystem is mounted and the normal init scripts are
# processed.
#
# Currently, only one dump target and path can be specified.  If the dumping to
# the configured target fails, the default action which can be configured via
# the "default" directive will be performed.
#
# Supported options:
#
```

```
# raw <partition>
#         - Will dd /proc/vmcore into <partition>.
#           Use persistent device names for partition devices,
#           such as /dev/vg/<devname>.
#
# nfs <nfs mount>
#         - Will mount nfs to <mnt>, and copy /proc/vmcore to
#           <mnt>/<path>/%HOST-%DATE/, supports DNS.
#
# ssh <user@server>
#         - Will scp /proc/vmcore to <user@server>:<path>/%HOST-%DATE/,
#           supports DNS.
#           NOTE: make sure the user has write permissions on the server.
#
# sshkey <path>
#         - Will use the sshkey to do ssh dump.
#           Specify the path of the ssh key to use when dumping
#           via ssh. The default value is /root/.ssh/kdump_id_rsa.
#
# <fs type> <partition>
#         - Will mount -t <fs type> <partition> <mnt>, and copy
#           /proc/vmcore to <mnt>/<path>/%DATE/.
#           NOTE: <partition> can be a device node, label or uuid.
#           It's recommended to use persistent device names
#           such as /dev/vg/<devname>.
#           Otherwise it's suggested to use label or uuid.
#
# path <path>
#         - "path" represents the file system path in which vmcore
#           will be saved.  If a dump target is specified in
#           kdump.conf, then "path" is relative to the specified
#           dump target.
#
#           Interpretation of "path" changes a bit if the user didn't
#           specify any dump target explicitly in kdump.conf.  In this
#           case, "path" represents the absolute path from root. The
#           dump target and adjusted path are arrived at automatically
#           depending on what's mounted in the current system.
#
#           Ignored for raw device dumps.  If unset, will use the default
#           "/var/crash".
#
# core_collector <command> <options>
#         - This allows you to specify the command to copy
#           the vmcore.  The default is makedumpfile, which on
#           some architectures can drastically reduce vmcore size.
#           See /sbin/makedumpfile --help for a list of options.
#           Note that the -i and -g options are not needed here,
#           as the initrd will automatically be populated with a
#           config file appropriate for the running kernel.
#           The default core_collector for raw/ssh dump is:
#           "makedumpfile -F -l --message-level 1 -d 31".
#           The default core_collector for other targets is:
```

```
#           "makedumpfile -l --message-level 1 -d 31".
#
#           "makedumpfile -F" will create a flattened vmcore.
#           You need to use "makedumpfile -R" to rearrange the dump data to
#           a normal dumpfile readable with analysis tools.  For example:
#           "makedumpfile -R vmcore < vmcore.flat".
#
#           For core_collector format details, you can refer to
#           kexec-kdump-howto.txt or kdump.conf manpage.
#
# kdump_post <binary | script>
#         - This directive allows you to run a executable binary
#           or script after the vmcore dump process terminates.
#           The exit status of the current dump process is fed to
#           the executable binary or script as its first argument.
#
# kdump_pre <binary | script>
#         - Works like the "kdump_post" directive, but instead of running
#           after the dump process, runs immediately before it.
#           Exit status of this binary is interpreted as follows:
#           0 - continue with dump process as usual
#           non 0 - reboot the system
#
# extra_bins <binaries | shell scripts>
#         - This directive allows you to specify additional binaries or
#           shell scripts to be included in the kdump initrd.
#           Generally they are useful in conjunction with a kdump_post
#           or kdump_pre binary or script which depends on these extra_bins.
#
# extra_modules <module(s)>
#         - This directive allows you to specify extra kernel modules
#           that you want to be loaded in the kdump initrd.
#           Multiple modules can be listed, separated by spaces, and any
#           dependent modules will automatically be included.
#
# default <reboot | halt | poweroff | shell | dump_to_rootfs>
#         - Action to perform in case dumping fails.
#           reboot:   Reboot the system.
#           halt:     Halt the system.
#           poweroff: Power down the system.
#           shell:    Drop to a bash shell.
#                     Exiting the shell reboots the system.
#           dump_to_rootfs:  Dump vmcore to rootfs from initramfs context and
#                     reboot. Useful when non-root dump target is specified.
#           The default option is "reboot".
#
# force_rebuild <0 | 1>
#         - By default, kdump initrd will only be rebuilt when necessary.
#           Specify 1 to force rebuilding kdump initrd every time when kdump
#           service starts.
#
# force_no_rebuild <0 | 1>
#         - By default, kdump initrd will be rebuilt when necessary.
```

```
#           Specify 1 to bypass rebuilding of kdump initrd.
#
#           force_no_rebuild and force_rebuild options are mutually
#           exclusive and they should not be set to 1 simultaneously.
#
# override_resettable <0 | 1>
#         - Usually an unresettable block device can't be a dump target.
#           Specifying 1 when you want to dump even though the block
#           target is unresettable
#           By default, it is 0, which will not try dumping destined to fail.
#
# dracut_args <arg(s)>
#         - Pass extra dracut options when rebuilding kdump initrd.
#
# fence_kdump_args <arg(s)>
#         - Command line arguments for fence_kdump_send (it can contain
#           all valid arguments except hosts to send notification to).
#
# fence_kdump_nodes <node(s)>
#         - List of cluster node(s) except localhost, separated by spaces,
#           to send fence_kdump notifications to.
#           (this option is mandatory to enable fence_kdump).
#

#raw /dev/vg/lv_kdump
#ext4 /dev/vg/lv_kdump
#ext4 LABEL=/boot
#ext4 UUID=03138356-5e61-4ab3-b58e-27507ac41937
#nfs my.server.com:/export/tmp
#ssh user@my.server.com
#sshkey /root/.ssh/kdump_id_rsa
path /var/crash                                  →ダンプ出力のパ
core_collector makedumpfile -l --message-level 1 -d 31   →dumpの圧縮
#core_collector scp
#kdump_post /var/crash/scripts/kdump-post.sh     ダンプ出力先デバ
#kdump_pre /var/crash/scripts/kdump-pre.sh       ダンプ出力後の動
#extra_bins /usr/bin/lftp
#extra_modules gfs2
#default shell
#force_rebuild 1
#force_no_rebuild 1
#dracut_args --omit-drivers "cfg80211 snd" --add-drivers "ext2 ext3"
#fence_kdump_args -p 7410 -f auto -c 0 -i 10
#fence_kdump_nodes node1 node2
```

sellinux

```
[root@RHEL75 yum.repos.d]# cat /etc/selinux/config

# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#     enforcing - SELinux security policy is enforced.
#     permissive - SELinux prints warnings instead of enforcing.
```

```
#     disabled - No SELinux policy is loaded.
SELINUX=enforcing
# SELINUXTYPE= can take one of three two values:
#     targeted - Targeted processes are protected,
#     minimum - Modification of targeted policy. Only selected processes are protected
#     mls - Multi Level Security protection.
SELINUXTYPE=targeted
```

? keyboard

network

```
[root@RHEL75 ~]# cat /etc/sysconfig/network                https://www.infraeye.co
# Created by anaconda
以下を書き加える
  NETWORKING=yes                    →デフォルト
  HOSTNAME=localhost.localdomain    →デフォルト（任意に指定）
  GATEWAY=XX.XX.XX.XX               →なし
  NOZEROCONF=yes                    →追記する？      https://qiita.com/shyam
```

disable_IPv6.conf

```
[root@RHEL75 modprobe.d]# ls -l                    →confファイルないので、設定なしで記載
合計 24
-rw-r--r--. 1 root root  215  9月 21  2018 dccp-blacklist.conf
-rw-r--r--. 1 root root  166  8月 11  2018 firewalld-sysctls.conf
-rw-r--r--. 1 root root  746  2月 23  2018 lockd.conf
-rw-r--r--. 1 root root 1004  9月 15  2017 mlx4.conf
-rw-r--r--. 1 root root   92  4月 17  2018 truescale.conf
-rw-r--r--. 1 root root  674 10月 30  2017 tuned.conf
[root@RHEL75 modprobe.d]# pwd
/etc/modprobe.d
```

anacrontab

```
[root@RHEL75 etc]# cat /etc/anacrontab
# /etc/anacrontab: configuration file for anacron

# See anacron(8) and anacrontab(5) for details.

SHELL=/bin/sh
PATH=/sbin:/bin:/usr/sbin:/usr/bin
MAILTO=root
# the maximal random delay added to the base delay of the jobs
RANDOM_DELAY=45
# the jobs will be started during the following hours only
START_HOURS_RANGE=3-22

#period in days   delay in minutes   job-identifier   command
1       5       cron.daily              nice run-parts /etc/cron.daily
7       25      cron.weekly             nice run-parts /etc/cron.weekly
@monthly 45     cron.monthly            nice run-parts /etc/cron.monthly
```

logrotate.conf

```
[root@RHEL75 etc]# cat /etc/logrotate.conf
# see "man logrotate" for details
# rotate log files weekly
weekly

# keep 4 weeks worth of backlogs
rotate 4

# create new (empty) log files after rotating old ones
create

# use date as a suffix of the rotated file
dateext

# uncomment this if you want your log files compressed
#compress

# RPM packages drop log rotation information into this directory
include /etc/logrotate.d

# no packages own wtmp and btmp -- we'll rotate them here
/var/log/wtmp {
    monthly
    create 0664 root utmp
        minsize 1M
    rotate 1
}

/var/log/btmp {
    missingok
    monthly
    create 0600 root utmp
    rotate 1
}

# system-specific logs may be also be configured here.
```

logrotate.d/syslog

```
[root@RHEL75 etc]# cat /etc/logrotate.d/syslog
/var/log/cron
/var/log/maillog
/var/log/messages
/var/log/secure
/var/log/spooler
{
    missingok
    sharedscripts
    postrotate
        /bin/kill -HUP `cat /var/run/syslogd.pid 2> /dev/null` 2> /dev/null || true
    endscript
}
```

copytruncateは設定なし「-」

sudoers

```
[root@RHEL75 etc]# cat /etc/sudoers
## Sudoers allows particular users to run various commands as
## the root user, without needing the root password.
##
## Examples are provided at the bottom of the file for collections
## of related commands, which can then be delegated out to particular
## users or groups.
##
## This file must be edited with the 'visudo' command.

## Host Aliases
## Groups of machines. You may prefer to use hostnames (perhaps using
## wildcards for entire domains) or IP addresses instead.
# Host_Alias     FILESERVERS = fs1, fs2
# Host_Alias     MAILSERVERS = smtp, smtp2

## User Aliases
## These aren't often necessary, as you can use regular groups
## (ie, from files, LDAP, NIS, etc) in this file - just use %groupname
## rather than USERALIAS
# User_Alias ADMINS = jsmith, mikem


## Command Aliases
## These are groups of related commands...

## Networking
# Cmnd_Alias NETWORKING = /sbin/route, /sbin/ifconfig, /bin/ping, /sbin/dhclient, /u

## Installation and management of software
# Cmnd_Alias SOFTWARE = /bin/rpm, /usr/bin/up2date, /usr/bin/yum

## Services
# Cmnd_Alias SERVICES = /sbin/service, /sbin/chkconfig, /usr/bin/systemctl start, /us

## Updating the locate database
# Cmnd_Alias LOCATE = /usr/bin/updatedb

## Storage
# Cmnd_Alias STORAGE = /sbin/fdisk, /sbin/sfdisk, /sbin/parted, /sbin/partprobe, /bin

## Delegating permissions
# Cmnd_Alias DELEGATING = /usr/sbin/visudo, /bin/chown, /bin/chmod, /bin/chgrp

## Processes
# Cmnd_Alias PROCESSES = /bin/nice, /bin/kill, /usr/bin/kill, /usr/bin/killall

## Drivers
# Cmnd_Alias DRIVERS = /sbin/modprobe
```

```
# Defaults specification

#
# Refuse to run if unable to disable echo on the tty.
#
Defaults   !visiblepw                                    http://www.maruko2.com/m

#
# Preserving HOME has security implications since many programs
# use it when searching for configuration files. Note that HOME
# is already set when the the env_reset option is enabled, so
# this option is only effective for configurations where either
# env_reset is disabled or HOME is present in the env_keep list.
#
Defaults    always_set_home
Defaults    match_group_by_gid

Defaults    env_reset
Defaults    env_keep =  "COLORS DISPLAY HOSTNAME HISTSIZE KDEDIR LS_COLORS
Defaults    env_keep += "MAIL PS1 PS2 QTDIR USERNAME LANG LC_ADDRESS LC_C
Defaults    env_keep += "LC_COLLATE LC_IDENTIFICATION LC_MEASUREMENT LC_M
Defaults    env_keep += "LC_MONETARY LC_NAME LC_NUMERIC LC_PAPER LC_TELE
Defaults    env_keep += "LC_TIME LC_ALL LANGUAGE LINGUAS _XKB_CHARSET XAU

#
# Adding HOME to env_keep may enable a user to run unrestricted
# commands via sudo.
#
# Defaults   env_keep += "HOME"

Defaults    secure_path = /sbin:/bin:/usr/sbin:/usr/bin

## Next comes the main part: which users can run what software on
## which machines (the sudoers file can be shared between multiple
## systems).
## Syntax:
##
##      user    MACHINE=COMMANDS
##
## The COMMANDS section may have other options added to it.
##
## Allow root to run any commands anywhere
root    ALL=(ALL)       ALL

## Allows members of the 'sys' group to run networking, software,
## service management apps and more.
# %sys ALL = NETWORKING, SOFTWARE, SERVICES, STORAGE, DELEGATING, PROC

## Allows people in group wheel to run all commands
%wheel  ALL=(ALL)       ALL

## Same thing without a password
```

```
# %wheel        ALL=(ALL)       NOPASSWD: ALL

## Allows members of the users group to mount and unmount the
## cdrom as root
# %users  ALL=/sbin/mount /mnt/cdrom, /sbin/umount /mnt/cdrom

## Allows members of the users group to shutdown this system
# %users  localhost=/sbin/shutdown -h now

## Read drop-in files from /etc/sudoers.d (the # here does not mean a comment)
#includedir /etc/sudoers.d
```

sysctl.conf

```
[root@RHEL75 etc]# cat /etc/sysctl.conf
# sysctl settings are defined through files in
# /usr/lib/sysctl.d/, /run/sysctl.d/, and /etc/sysctl.d/.
#
# Vendors settings live in /usr/lib/sysctl.d/.
# To override a whole file, create a new file with the same in
# /etc/sysctl.d/ and put new settings there. To override
# only specific settings, add a file with a lexically later
# name in /etc/sysctl.d/ and put new settings there.
#
# For more information, see sysctl.conf(5) and sysctl.d(5).
```

http://eno0514.hatenadiary.jp/entry/20150622/1434905054

→設定追加する

limits.conf

```
[root@RHEL75 etc]# cat /etc/security/limits.conf
# /etc/security/limits.conf
#
#This file sets the resource limits for the users logged in via PAM.
#It does not affect resource limits of the system services.
#
#Also note that configuration files in /etc/security/limits.d directory,
#which are read in alphabetical order, override the settings in this
#file in case the domain is the same or more specific.
#That means for example that setting a limit for wildcard domain here
#can be overriden with a wildcard setting in a config file in the
#subdirectory, but a user specific setting here can be overriden only
#with a user specific setting in the subdirectory.
#
#Each line describes a limit for a user in the form:
#
#<domain>        <type>  <item>  <value>
#
#Where:
#<domain> can be:
#        - a user name
#        - a group name, with @group syntax
#        - the wildcard *, for default entry
#        - the wildcard %, can be also used with %group syntax,
```

```
#               for maxlogin limit
#
#<type> can have the two values:
#       - "soft" for enforcing the soft limits
#       - "hard" for enforcing hard limits
#
#<item> can be one of the following:
#       - core - limits the core file size (KB)
#       - data - max data size (KB)
#       - fsize - maximum filesize (KB)
#       - memlock - max locked-in-memory address space (KB)
#       - nofile - max number of open file descriptors
#       - rss - max resident set size (KB)
#       - stack - max stack size (KB)
#       - cpu - max CPU time (MIN)
#       - nproc - max number of processes
#       - as - address space limit (KB)
#       - maxlogins - max number of logins for this user
#       - maxsyslogins - max number of logins on the system
#       - priority - the priority to run user process with
#       - locks - max number of file locks the user can hold
#       - sigpending - max number of pending signals
#       - msgqueue - max memory used by POSIX message queues (bytes)
#       - nice - max nice priority allowed to raise to values: [-20, 19]
#       - rtprio - max realtime priority
#
#<domain>      <type>  <item>         <value>
#

#*               soft    core            0
#*               hard    rss             10000
#@student        hard    nproc           20
#@faculty        soft    nproc           20
#@faculty        hard    nproc           50
#ftp             hard    nproc           0
#@student        -       maxlogins       4

# End of file

[root@RHEL75 etc]# cat  /etc/security/limits.d/20-nproc.conf
# Default limit for number of user's processes to prevent
# accidental fork bombs.
# See rhbz #432903 for reasoning.

*          soft    nproc     4096
root       soft    nproc     unlimited
```

login.defs

```
[root@RHEL75 etc]# cat /etc/login.defs
#
# Please note that the parameters in this configuration file control the
# behavior of the tools from the shadow-utils component. None of these
# tools uses the PAM mechanism, and the utilities that use PAM (such as the
```

```
# passwd command) should therefore be configured elsewhere. Refer to
# /etc/pam.d/system-auth for more information.
#

# *REQUIRED*
#   Directory where mailboxes reside, _or_ name of file, relative to the
#   home directory.  If you _do_ define both, MAIL_DIR takes precedence.
#   QMAIL_DIR is for Qmail
#
#QMAIL_DIR      Maildir
MAIL_DIR        /var/spool/mail
#MAIL_FILE      .mail

# Password aging controls:
#
#       PASS_MAX_DAYS   Maximum number of days a password may be used.
#       PASS_MIN_DAYS   Minimum number of days allowed between password change
#       PASS_MIN_LEN    Minimum acceptable password length.
#       PASS_WARN_AGE   Number of days warning given before a password expires.
#
PASS_MAX_DAYS   99999
PASS_MIN_DAYS   0
PASS_MIN_LEN    5
PASS_WARN_AGE   7

#
# Min/max values for automatic uid selection in useradd
#
UID_MIN                 1000
UID_MAX                 60000
# System accounts
SYS_UID_MIN               201
SYS_UID_MAX               999

#
# Min/max values for automatic gid selection in groupadd
#
GID_MIN                 1000
GID_MAX                 60000
# System accounts
SYS_GID_MIN               201
SYS_GID_MAX               999

#
# If defined, this command is run when removing a user.
# It should remove any at/cron/print jobs etc. owned by
# the user to be removed (passed as the first argument).
#
#USERDEL_CMD    /usr/sbin/userdel_local

#
# If useradd should create home directories for users by default
# On RH systems, we do. This option is overridden with the -m flag on
```

```
# useradd command line.
#
CREATE_HOME     yes

# The permission mask is initialized to this value. If not specified,
# the permission mask will be initialized to 022.
UMASK           077

# This enables userdel to remove user groups if no members exist.
#
USERGROUPS_ENAB yes

# Use SHA512 to encrypt password.
ENCRYPT_METHOD SHA512
```

profile

```
[root@RHEL75 etc]# cat /etc/profile
# /etc/profile

# System wide environment and startup programs, for login setup
# Functions and aliases go in /etc/bashrc

# It's NOT a good idea to change this file unless you know what you
# are doing. It's much better to create a custom.sh shell script in
# /etc/profile.d/ to make custom changes to your environment, as this
# will prevent the need for merging in future updates.

pathmunge () {
    case ":${PATH}:" in
        *:"$1":*)
            ;;
        *)
            if [ "$2" = "after" ] ; then
                PATH=$PATH:$1
            else
                PATH=$1:$PATH
            fi
    esac
}


if [ -x /usr/bin/id ]; then
    if [ -z "$EUID" ]; then
        # ksh workaround
        EUID=`/usr/bin/id -u`
        UID=`/usr/bin/id -ru`
    fi
    USER="`/usr/bin/id -un`"
    LOGNAME=$USER
    MAIL="/var/spool/mail/$USER"
fi

# Path manipulation
```

```
if [ "$EUID" = "0" ]; then
    pathmunge /usr/sbin
    pathmunge /usr/local/sbin
else
    pathmunge /usr/local/sbin after
    pathmunge /usr/sbin after
fi

HOSTNAME=`/usr/bin/hostname 2>/dev/null`
HISTSIZE=1000
if [ "$HISTCONTROL" = "ignorespace" ] ; then
    export HISTCONTROL=ignoreboth
else
    export HISTCONTROL=ignoredups
fi

export PATH USER LOGNAME MAIL HOSTNAME HISTSIZE HISTCONTROL

# By default, we want umask to get set. This sets it for login shell
# Current threshold for system reserved uid/gids is 200
# You could check uidgid reservation validity in
# /usr/share/doc/setup-*/uidgid file
if [ $UID -gt 199 ] && [ "`/usr/bin/id -gn`" = "`/usr/bin/id -un`" ]; then
    umask 002
else
    umask 022
fi

for i in /etc/profile.d/*.sh /etc/profile.d/sh.local ; do
    if [ -r "$i" ]; then
        if [ "${-#*i}" != "$-" ]; then
            . "$i"
        else
            . "$i" >/dev/null
        fi
    fi
done

unset i
unset -f pathmunge
```

本番インターフェース

```
[root@localhost ~]# ls -l /etc/sysconfig/network-scripts/ifcfg-*
-rw-r--r--. 1 root root 361  1月 28 10:48 /etc/sysconfig/network-scripts/ifcfg-enp4s0
-rw-r--r--. 1 root root 254  1月  3  2018 /etc/sysconfig/network-scripts/ifcfg-lo
[root@localhost ~]# cat /etc/sysconfig/network-scripts/ifcfg-enp4s0
TYPE=Ethernet
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=none
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=enp4s0
UUID=8cdaab27-bd07-44d9-a53b-6f676bc74112
DEVICE=enp4s0
ONBOOT=yes
IPADDR=192.169.2.101
PREFIX=24
GATEWAY=192.169.2.1
DNS1=192.169.2.1
PEERDNS=no
```

本番スタティックルート

なし？ではないか

本番ゲートウェイ　→追記する？

```
[root@localhost ~]# ls -l /etc/sysconfig/network
-rw-r--r--. 1 root root 22  1月 28 10:21 /etc/sysconfig/network
[root@localhost ~]# cat /etc/sysconfig/network
# Created by anaconda
```

```
[root@localhost ~]# ls -l /etc/fstab
-rw-r--r--. 1 root root 541  1月 27 23:33 /etc/fstab
[root@localhost ~]# cat /etc/fstab

#
# /etc/fstab
# Created by anaconda on Wed Jan 27 23:33:26 2021
#
# Accessible filesystems, by reference, are maintained under '/dev/disk'
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info
#
/dev/mapper/rhel-root   /                       xfs     defaults        0 0
UUID=938d4b5f-3289-4bee-b9d8-d3091638f835 /boot                   xfs     defaults        0 0
/dev/mapper/rhel-home   /home                   xfs     defaults        0 0
/dev/mapper/rhel-swap   swap                    swap    defaults        0 0
```

```
[root@localhost ~]# ls -l /etc/hosts
-rw-r--r--. 1 root root 158  6月  7  2013 /etc/hosts
[root@localhost ~]# cat /etc/hosts
127.0.0.1   localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
```

→要件次第で追加

system-auth

```
[root@localhost ~]# ls -l /etc/pam.d/system-auth
lrwxrwxrwx. 1 root root 14  1月 28 00:08 /etc/pam.d/system-auth -> system-auth-ac
[root@localhost ~]# cat /etc/pam.d/system-auth
#%PAM-1.0
# This file is auto-generated.
# User changes will be destroyed the next time authconfig is run.
auth        required      pam_env.so
auth        required      pam_faildelay.so delay=2000000
auth        sufficient    pam_fprintd.so
auth        sufficient    pam_unix.so nullok try_first_pass
auth        requisite     pam_succeed_if.so uid >= 1000 quiet_success
auth        required      pam_deny.so

account     required      pam_unix.so
account     sufficient    pam_localuser.so
account     sufficient    pam_succeed_if.so uid < 1000 quiet
account     required      pam_permit.so

password    requisite     pam_pwquality.so try_first_pass local_users_only retry=3 authtok_type=
password    sufficient    pam_unix.so sha512 shadow nullok try_first_pass use_authtok
password    required      pam_deny.so

session     optional      pam_keyinit.so revoke
session     required      pam_limits.so
-session     optional      pam_systemd.so
session     [success=1 default=ignore] pam_succeed_if.so service in crond quiet use_uid
session     required      pam_unix.so
```

su

```
[root@localhost ~]# cat /etc/pam.d/su
#%PAM-1.0
auth            sufficient      pam_rootok.so
# Uncomment the following line to implicitly trust users in the "wheel" group.
#auth           sufficient      pam_wheel.so trust use_uid
# Uncomment the following line to require a user to be in the "wheel" group.
#auth           required        pam_wheel.so use_uid
auth            substack        system-auth
auth            include         postlogin
account         sufficient      pam_succeed_if.so uid = 0 use_uid quiet
account         include         system-auth
password        include         system-auth
session         include         system-auth
session         include         postlogin
session         optional        pam_xauth.so
```

sshd

```
[root@localhost ~]# cat /etc/pam.d/sshd
#%PAM-1.0
```

```
auth        required      pam_sepermit.so
auth        substack      password-auth
auth        include       postlogin
# Used with polkit to reauthorize users in remote sessions
-auth       optional      pam_reauthorize.so prepare
account     required      pam_nologin.so
account     include       password-auth
password    include       password-auth
# pam_selinux.so close should be the first session rule
session     required      pam_selinux.so close
session     required      pam_loginuid.so
# pam_selinux.so open should only be followed by sessions to be executed in the user context
session     required      pam_selinux.so open env_params
session     required      pam_namespace.so
session     optional      pam_keyinit.so force revoke
session     include       password-auth
session     include       postlogin
# Used with polkit to reauthorize users in remote sessions
-session    optional      pam_reauthorize.so prepare
```

password-auth

```
[root@localhost ~]# cat /etc/pam.d/password-auth
#%PAM-1.0
# This file is auto-generated.
# User changes will be destroyed the next time authconfig is run.
auth        required      pam_env.so
auth        required      pam_faildelay.so delay=2000000
auth        sufficient    pam_unix.so nullok try_first_pass
auth        requisite     pam_succeed_if.so uid >= 1000 quiet_success
auth        required      pam_deny.so

account     required      pam_unix.so
account     sufficient    pam_localuser.so
account     sufficient    pam_succeed_if.so uid < 1000 quiet
account     required      pam_permit.so

password    requisite     pam_pwquality.so try_first_pass local_users_only retry=3 authtok_type=
password    sufficient    pam_unix.so sha512 shadow nullok try_first_pass use_authtok


password    required      pam_deny.so

session     optional      pam_keyinit.so revoke
session     required      pam_limits.so
-session    optional      pam_systemd.so
session     [success=1 default=ignore] pam_succeed_if.so service in crond quiet use_uid
session     required      pam_unix.so
```

ファイルがあるものは有効、ないものは無効の解釈でよいのではないか？

```
[root@localhost etc]# ls -l /etc/cron*
-rw-------. 1 root root   0 10月 16  2017 /etc/cron.deny
-rw-r--r--. 1 root root 451 12月 28  2013 /etc/crontab

/etc/cron.d:
合計 12
-rw-r--r--. 1 root root 128 10月 16  2017 0hourly
-rw-r--r--. 1 root root 108  2月  7  2018 raid-check
-rw-------. 1 root root 235 11月  9  2017 sysstat

/etc/cron.daily:
合計 16
-rwx------. 1 root root 219  9月 26  2017 logrotate
-rwxr-xr-x. 1 root root 618  7月 10  2018 man-db.cron
-rwx------. 1 root root 208 11月  9  2017 mlocate
-rwx------. 1 root root 256  3月 14  2018 rhsmd

/etc/cron.hourly:
合計 8
-rwxr-xr-x. 1 root root 392 10月 16  2017 0anacron
-rwxr-xr-x. 1 root root 191 10月 18  2017 mcelog.cron

/etc/cron.monthly:
合計 0

/etc/cron.weekly:
合計 0
```

デフォルトでコメントアウトされていない、つまり、有効になっている
→ITS基準では全コメントアウト（必要なところだけ有効）にする
→要件確認

```
[root@localhost etc]# cat /etc/services  | more
# /etc/services:
# $Id: services,v 1.55 2013/04/14 ovasik Exp $
#
# Network services, Internet style
# IANA services version: last updated 2013-04-10
#
# Note that it is presently the policy of IANA to assign a single well-known
# port number for both TCP and UDP; hence, most entries here have two entries
# even if the protocol doesn't support UDP operations.
# Updated from RFC 1700, ``Assigned Numbers'' (October 1994).  Not all ports
# are included, only the more common ones.
#
# The latest IANA port assignments can be gotten from
#       http://www.iana.org/assignments/port-numbers
# The Well Known Ports are those from 0 through 1023.
# The Registered Ports are those from 1024 through 49151
# The Dynamic and/or Private Ports are those from 49152 through 65535
#
# Each line describes one service, and is of the form:
#
# service-name  port/protocol  [aliases ...]  [# comment]

tcpmux          1/tcp                   # TCP port service multiplexer
tcpmux          1/udp                   # TCP port service multiplexer
rje             5/tcp                   # Remote Job Entry
rje             5/udp                   # Remote Job Entry
echo            7/tcp
--続ける--
```

現状の自動起動設定は以下の通り、
ITS基準にあわせて設定追加が必要であれば、追加する。

```
[root@localhost etc]# chkconfig --list

注記: この出力に含まれるのは SysV サービスのみです。ネイティブな
      systemd サービスは含まれません。SysV の設定データはネイティブな
        systemd 設定で上書きされる場合があります。
      systemd サービスを一覧表示する場合は 'systemctl list-unit-files' を使用します。
      特定のターゲットで有効になっているサービスを確認する場合は
      'systemctl list-dependencies [target]'を使用します。

netconsole      0:off   1:off   2:off   3:off   4:off   5:off   6:off
network         0:off   1:off   2:on    3:on    4:on    5:on    6:off
rhnsd           0:off   1:off   2:on    3:on    4:on    5:on    6:off
```

rcスクリプト　　→よくわからない

```
[root@localhost etc]# cat /etc/rc.d/rc.local
#!/bin/bash
# THIS FILE IS ADDED FOR COMPATIBILITY PURPOSES
#
# It is highly advisable to create own systemd services or udev rules
# to run scripts during boot instead of using this file.
#
# In contrast to previous versions due to parallel execution during boot
# this script will NOT be run after all other services.
#
# Please note that you must run 'chmod +x /etc/rc.d/rc.local' to ensure
# that this script will be executed during boot.

touch /var/lock/subsys/local
```

```
[root@localhost etc]# cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
polkitd:x:999:998:User for polkitd:/:/sbin/nologin
libstoragemgmt:x:998:996:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
colord:x:997:995:User for colord:/var/lib/colord:/sbin/nologin
saslauth:x:996:76:Saslauthd user:/run/saslauthd:/sbin/nologin
abrt:x:173:173::/etc/abrt:/sbin/nologin
setroubleshoot:x:995:992::/var/lib/setroubleshoot:/sbin/nologin
rtkit:x:172:172:RealtimeKit:/proc:/sbin/nologin
gluster:x:994:991:GlusterFS daemons:/var/run/gluster:/sbin/nologin
chrony:x:993:990::/var/lib/chrony:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
nfsnobody:x:65534:65534:Anonymous NFS User:/var/lib/nfs:/sbin/nologin
unbound:x:992:989:Unbound DNS resolver:/etc/unbound:/sbin/nologin
tss:x:59:59:Account used by the trousers package to sandbox the tcsd daemon:/dev/null:/sbin/nologin
usbmuxd:x:113:113:usbmuxd user:/:/sbin/nologin
geoclue:x:991:987:User for geoclue:/var/lib/geoclue:/sbin/nologin
radvd:x:75:75:radvd user:/:/sbin/nologin
qemu:x:107:107:qemu user:/:/sbin/nologin
pulse:x:171:171:PulseAudio System Daemon:/var/run/pulse:/sbin/nologin
gdm:x:42:42::/var/lib/gdm:/sbin/nologin
gnome-initial-setup:x:990:984::/run/gnome-initial-setup/:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
avahi:x:70:70:Avahi mDNS/DNS-SD Stack:/var/run/avahi-daemon:/sbin/nologin
postfix:x:89:89::/var/spool/postfix:/sbin/nologin
ntp:x:38:38::/etc/ntp:/sbin/nologin
tcpdump:x:72:72::/:/sbin/nologin
mubk-aml-lib:x:1000:1000:mubk-aml-lib:/home/mubk-aml-lib:/bin/bash
dockerroot:x:989:983:Docker User:/var/lib/docker:/sbin/nologin
```

1	2	3	4	5	6	7
tamohiko:	x:	1000:	1000:	operator:	/home/tamohiko:	/bin/bash

	項目	説明
1	ユーザ名	ユーザ名が記述されている
2	パスワード	「x」(/etc/shadow を使用)「*」(アカウントを維持的に無効化)「未設定」(パスワード設定なし)のいづれかとなっている
3	ユーザID	ユーザのID(uid)が記述されている
4	グループID	ユーザが所属している主グループのID(gid)が記述されいる
5	コメント	フルネームや役割などのコメント情報が記述されている
6	ホームディレクトリ	ユーザのホームディレクトリの場所がフルパスで記述されている
7	ログインシェル	ユーザがログインした際に適用されるシェルが記述されている

末尾に /bin/bash が記載されている →ssh可能

su可否の調べ方は調査中

例

[root@localhost etc]# cat /etc/group	wheel	グループ名
root:x:0:	x	「 x 」という文字か、暗号化されたパスワード。「 x 」はシャドウパスワードを使用している事を意味します。
bin:x:1:	10	グループID(GID)
daemon:x:2:	Mubk-aml-lib	サブグループとして所属しているユーザーアカウントのリスト。カンマ区切り。
sys:x:3:		
adm:x:4:		
tty:x:5:		
disk:x:6:		
lp:x:7:		
mem:x:8:		
kmem:x:9:		
wheel:x:10:mubk-aml-lib		
cdrom:x:11:		
mail:x:12:postfix		
man:x:15:		
dialout:x:18:		
floppy:x:19:		
games:x:20:		
tape:x:33:		
video:x:39:		
ftp:x:50:		
lock:x:54:		
audio:x:63:		
nobody:x:99:		
users:x:100:		
utmp:x:22:		
utempter:x:35:		
input:x:999:		
systemd-journal:x:190:		
systemd-network:x:192:		
dbus:x:81:		
polkitd:x:998:		
printadmin:x:997:		
libstoragemgmt:x:996:		
rpc:x:32:		
colord:x:995:		
dip:x:40:		
cgred:x:994:		
ssh_keys:x:993:		
saslauth:x:76:		
abrt:x:173:		
setroubleshoot:x:992:		
rtkit:x:172:		
gluster:x:991:		
chrony:x:990:		
rpcuser:x:29:		
nfsnobody:x:65534:		
unbound:x:989:		
tss:x:59:		
libvirt:x:988:		
usbmuxd:x:113:		
geoclue:x:987:		
radvd:x:75:		
kvm:x:36:qemu		
qemu:x:107:		
pulse-access:x:986:		
pulse-rt:x:985:		
pulse:x:171:		
gdm:x:42:		
gnome-initial-setup:x:984:		
sshd:x:74:		
avahi:x:70:		
slocate:x:21:		
postdrop:x:90:		
postfix:x:89:		
ntp:x:38:		
tcpdump:x:72:		
stapusr:x:156:		
stapsys:x:157:		
stapdev:x:158:		
mubk-aml-lib:x:1000:		
dockerroot:x:983:		