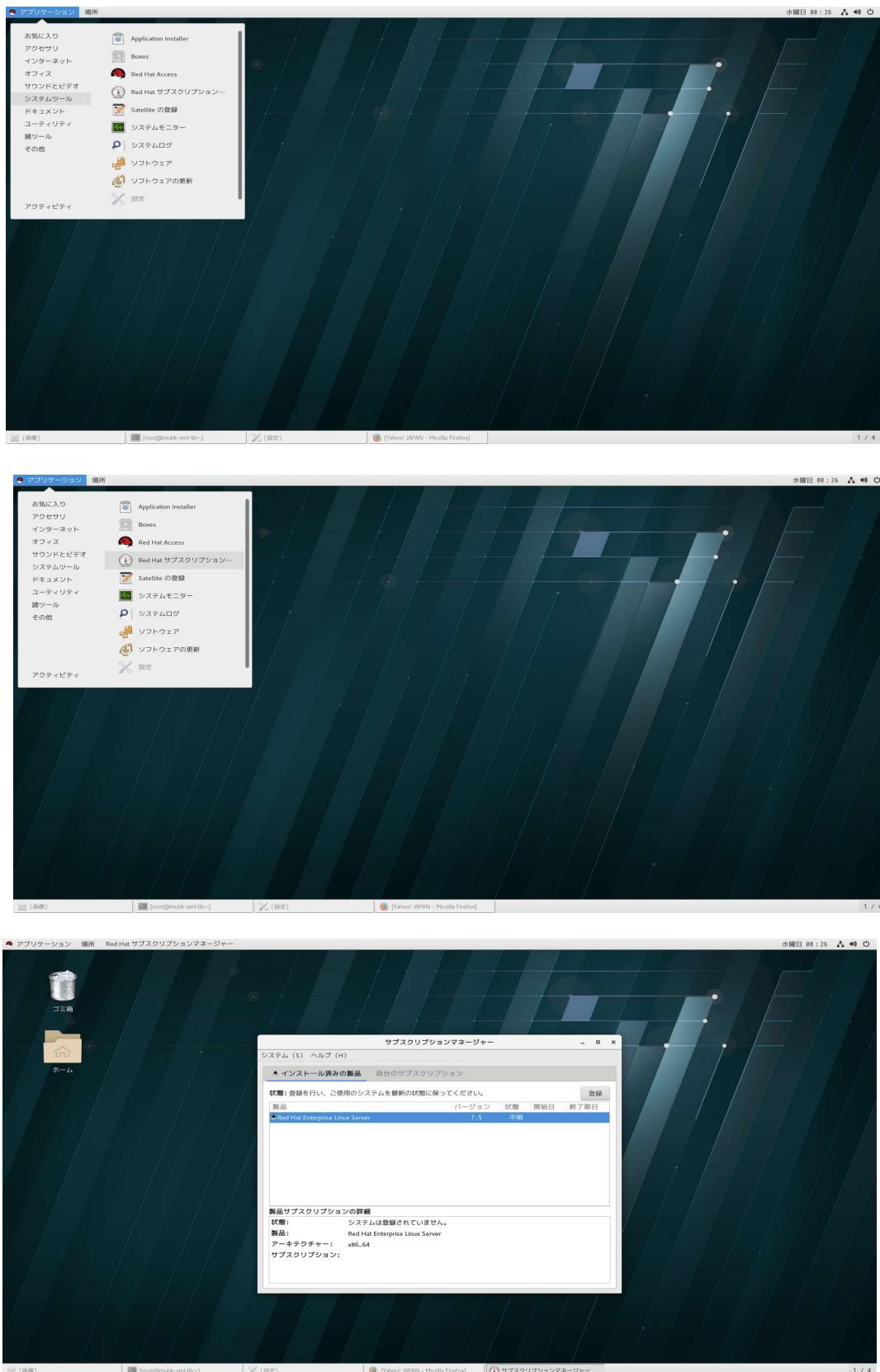
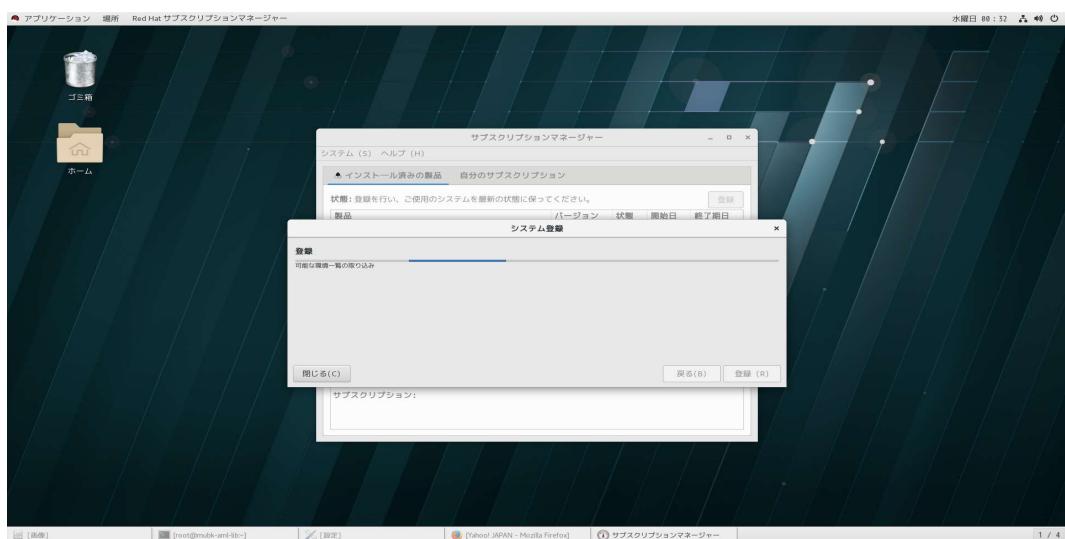
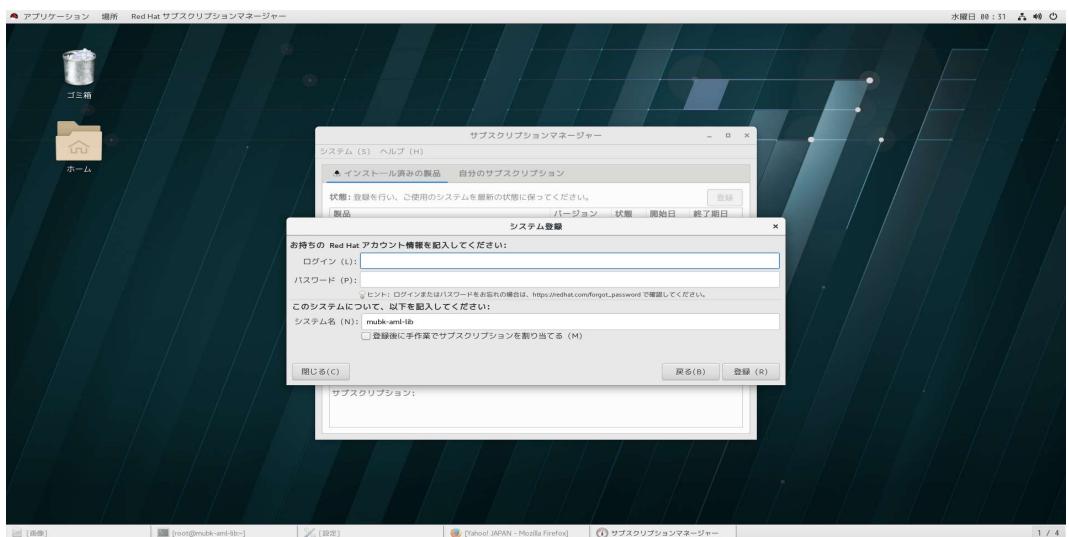
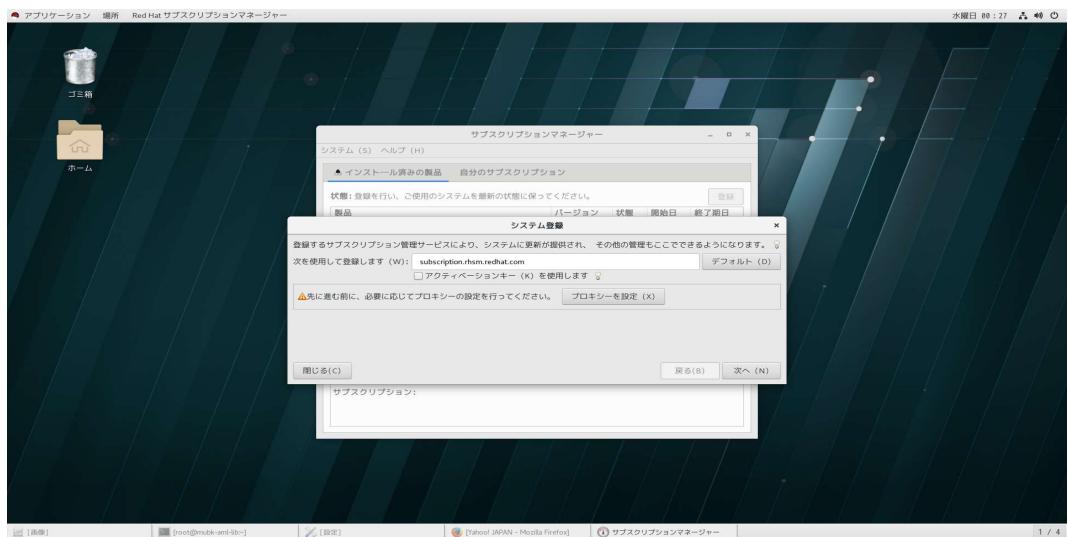


setup

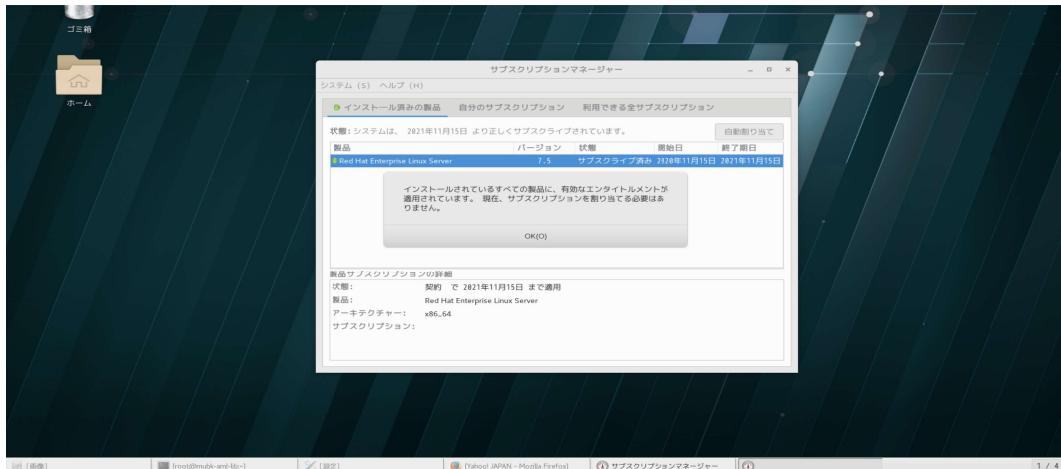
RHELのサブスクリプション登録



setup



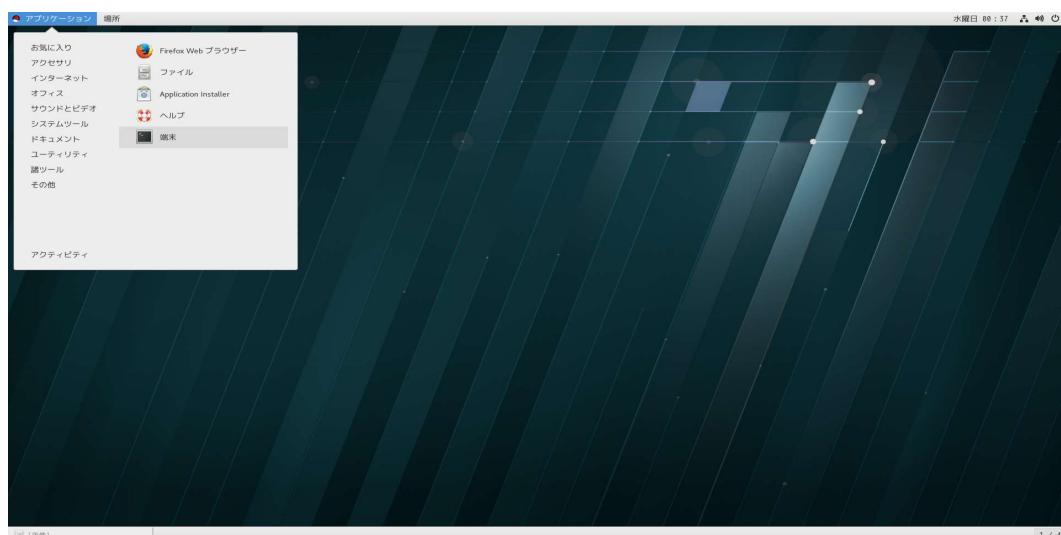
setup



サブスクリプションがうまく登録できない場合、コマンドでも実行してみる。

それでもうまく行かない場合は先ほどの画面で再度登録し直す。

何度か試す感じなる。



rootユーザーにスイッチする。

su -

subscription-manager register --auto-attach

subscription-manager register --force

```
root@mubk-aml-lib:~# 
root@mubk-aml-lib:~# 
root@mubk-aml-lib:~# subscription-manager register --auto-attach
このシステムは既に登録されています。上書きするには --force を使用します
root@mubk-aml-lib:~# 
root@mubk-aml-lib:~# subscription-manager register --force
登録の解除中: subscription.rhsm.redhat.com:443/subscription
UUIDが 0f0e7b10-a4c1-4ea7-967f-df350077c2c6 のシステムの登録は解除されました
ローカルデータが全て削除されました。
登録中: subscription.rhsm.redhat.com:443/subscription
ユーザー名: [REDACTED]
パスワード: [REDACTED]
このシステムは、次の ID で登録されました: 1ffdfb20-9ba4-4988-b185-39e2779f04c7
登録したシステム名: mubk-aml-lib
root@mubk-aml-lib:~# 
root@mubk-aml-lib:~# 
```

setup

システムのアップデート

rootユーザーにスイッチする。

su -

yum update --releasever=7.5

```
root@mubk-aml-lib:~# yum update --releasever=7.5
[root@mubk-aml-lib ~]# yum clean all
読み込んだプラグイン:langpacks, product-id, search-disabled-repos, subscription-manager
This system is registered with an entitlement server, but is not receiving updates. You can use subscription-manager to assign subscription
s.
There are no enabled repos.
Run "yum repolist all" to see the repos you have.
To enable Red Hat Subscription Management repositories:
    subscription-manager repos --enable <repo>
To enable custom repositories:
    yum-config-manager --enable <repo>
[root@mubk-aml-lib ~]# yum update --releasever=7.5
読み込んだプラグイン:langpacks, product-id, search-disabled-repos, subscription-manager
This system is registered with an entitlement server, but is not receiving updates. You can use subscription-manager to assign subscription
s.
There are no enabled repos.
Run "yum repolist all" to see the repos you have.
To enable Red Hat Subscription Management repositories:
    subscription-manager repos --enable <repo>
To enable custom repositories:
    yum-config-manager --enable <repo>
[root@mubk-aml-lib ~]# yum update --releasever=7.5
読み込んだプラグイン:langpacks, product-id, search-disabled-repos, subscription-manager
rhel-7-server-rpms
(1/3): rhel-7-server-rpms/7.5/x86_64/group | 3.4 kB 00:00:00
(2/3): rhel-7-server-rpms/7.5/x86_64/updateinfo | 773 kB 00:00:01
(3/3): rhel-7-server-rpms/7.5/x86_64/primary_db | 2.8 MB 00:00:04
| 50 MB 00:00:03
[...]
--> パッケージ iwl3945-firmware.noarch 0:15.32.2.9-62.2.el7_5 を アップデート
--> パッケージ iwl4965-firmware.noarch 0:228.61.2.24-62.el7 を 更新
--> パッケージ iwl4965-firmware.noarch 0:228.61.2.24-62.2.el7_5 を アップデート
--> パッケージ iwl5000-firmware.noarch 0:8.83.5.1_1-62.el7 を 更新
--> パッケージ iwl5000-firmware.noarch 0:8.83.5.1_1-62.2.el7_5 を アップデート
--> パッケージ iwl5150-firmware.noarch 0:8.24.2.2-62.el7 を 更新
--> パッケージ iwl5150-firmware.noarch 0:8.24.2.2-62.2.el7_5 を アップデート
--> パッケージ iwl6000-firmware.noarch 0:9.221.4.1-62.el7 を 更新
--> パッケージ iwl6000-firmware.noarch 0:9.221.4.1-62.2.el7_5 を アップデート
--> パッケージ iwl6000q2a-firmware.noarch 0:17.168.5.3-62.el7 を 更新
--> パッケージ iwl6000q2a-firmware.noarch 0:17.168.5.3-62.2.el7_5 を アップデート
--> パッケージ iwl6000q2b-firmware.noarch 0:17.168.5.2-62.el7 を 更新
--> パッケージ iwl6000q2b-firmware.noarch 0:17.168.5.2-62.2.el7_5 を アップデート
--> パッケージ iwl6050-firmware.noarch 0:41.28.5.1-62.el7 を 更新
--> パッケージ iwl6050-firmware.noarch 0:41.28.5.1-62.2.el7_5 を アップデート
--> パッケージ iwl7260-firmware.noarch 0:22.0.7.0-62.el7 を 更新
--> パッケージ iwl7260-firmware.noarch 0:22.0.7.0-62.2.el7_5 を アップデート
--> パッケージ iwl7265-firmware.noarch 0:22.0.7.0-62.2.el7_5 を アップデート
--> パッケージ java-1.8.0-openjdk.x86_64 1:1.8.0_191.b12-0.el7_5 を 更新
--> パッケージ java-1.8.0-openjdk.x86_64 1:1.8.0_191.b12-0.el7_5 を アップデート
--> パッケージ java-1.8.0-openjdk-headless.x86_64 1:1.8.0_191.b12-0.el7_5 を 更新
--> パッケージ kernel.x86_64 0:3.10.0-862.14.4.el7 を 更新
--> パッケージ kernel-tools.x86_64 0:3.10.0-862.el7 を 更新
--> パッケージ kernel-tools.x86_64 0:3.10.0-862.14.4.el7 を アップデート
--> パッケージ kernel-tools.x86_64 0:3.10.0-862.14.4.el7 を 更新
--> パッケージ kexec-tools.x86_64 0:2.0.15-13.el7_5_2 を アップデート
--> パッケージ kmod-kvdo.x86_64 0:6.1.0.155-15.el7 を 更新
--> パッケージ kmod-kvdo.x86_64 0:6.1.0.181-17.el7_5 を アップデート
[...]
spice-glib x86_64 0.34-3.el7_5.2
spice-gtk3 x86_64 0.34-3.el7_5.2
spice-server x86_64 0.14.0-2.el7_5.5
sssd-client x86_64 1.16.0-19.el7_5.2
subscription-manager x86_64 1.28.11-1.el7_5
subscription-manager-gui x86_64 1.28.11-1.el7_5
subscription-manager-initial-setup-addon x86_64 1.28.11-1.el7_5
subscription-manager-plugin-container x86_64 1.28.11-1.el7_5
subscription-manager-rhsm x86_64 1.28.11-1.el7_5
subscription-manager-rhsm-certificates x86_64 1.28.11-1.el7_5
sudo x86_64 1.8.199p2-14.el7_5
systemd x86_64 219-57.el7_5.3
systemd-libs x86_64 219-57.el7_5.3
systemd-python x86_64 219-57.el7_5.3
systemd-sysv x86_64 219-57.el7_5.3
systemtap-runtime noarch 3.2-8.el7_5
tuned noarch 2.9.0-1.el7_5.2
tzdata noarch 2018f-2.el7
tzdata-java noarch 2018f-2.el7
util-linux x86_64 2.23.2-52.el7_5.1
vdo x86_64 6.1.0.168-18
xorg-x11-drv-wacom x86_64 0.34.2-5.el7
xorg-x11-server-Xorg x86_64 1.19.5-5.1.el7_5
xorg-x11-server-common x86_64 1.19.5-5.1.el7_5
yum-utils noarch 1.1.31-46.el7_5
[...]
rhel-7-server-rpms 381 k
rhel-7-server-rpms 86 k
rhel-7-server-rpms 402 k
rhel-7-server-rpms 196 k
rhel-7-server-rpms 993 k
rhel-7-server-rpms 618 k
rhel-7-server-rpms 289 k
rhel-7-server-rpms 205 k
rhel-7-server-rpms 285 k
rhel-7-server-rpms 200 k
rhel-7-server-rpms 1.1 M
rhel-7-server-rpms 5.0 M
rhel-7-server-rpms 402 k
rhel-7-server-rpms 129 k
rhel-7-server-rpms 80 k
rhel-7-server-rpms 404 k
rhel-7-server-rpms 244 k
rhel-7-server-rpms 484 k
rhel-7-server-rpms 185 k
rhel-7-server-rpms 2.0 M
rhel-7-server-rpms 602 k
rhel-7-server-rpms 306 k
rhel-7-server-rpms 1.5 M
rhel-7-server-rpms 53 k
rhel-7-server-rpms 120 k
[...]
トランザクションの要約
=====
インストール 1 パッケージ
更新 185 パッケージ
総ダウンロード容量: 358 M
Is this ok [y/N]: y
(163/186): spice-glib-0.34-3.el7_5.2.x86_64.rpm | 381 kB 00:00:01
(164/186): spice-server-0.14.0-2.el7_5.5.x86_64.rpm | 402 kB 00:00:01
(165/186): sssd-client-1.16.0-19.el7_5.8.x86_64.rpm | 196 kB 00:00:00
(166/186): subscription-manager-gui-1.20.11-1.el7_5.x86_64.rpm | 618 kB 00:00:01
(167/186): subscription-manager-initial-setup-addon-1.20.11-1.el7_5.x86_64.rpm | 993 kB 00:00:01
(168/186): subscription-manager-plugin-container-1.20.11-1.el7_5.x86_64.rpm | 285 kB 00:00:01
(169/186): subscription-manager-rhsm-1.20.11-1.el7_5.x86_64.rpm | 289 kB 00:00:01
(170/186): subscription-manager-rhsm-certificates-1.20.11-1.el7_5.x86_64.rpm | 285 kB 00:00:00
(171/186): sudo-1.8.199p2-14.el7_5.x86_64.rpm | 200 kB 00:00:01
(172/186): sudo-1.8.199p2-14.el7_5.x86_64.rpm | 1.1 MB 00:00:01
(173/186): systemd-219-57.el7_5.3.x86_64.rpm | 5.0 MB 00:00:01
(174/186): systemd-libs-219-57.el7_5.3.x86_64.rpm | 402 kB 00:00:01
(175/186): systemd-python-219-57.el7_5.3.x86_64.rpm | 129 kB 00:00:01
(176/186): systemd-sysv-219-57.el7_5.3.x86_64.rpm | 80 kB 00:00:01
(177/186): systemtap-runtime-3.2-8.el7_5.x86_64.rpm | 404 kB 00:00:01
(178/186): tuned-2.9.0-1.el7_5.noarch.rpm | 244 kB 00:00:01
(179/186): tzdata-2018f-2.el7.noarch.rpm | 484 kB 00:00:00
(180/186): tzdata-java-2018f-2.el7.noarch.rpm | 185 kB 00:00:01
(181/186): util-linux-2.23.2-52.el7_5.1.x86_64.rpm | 2.0 MB 00:00:00
(182/186): vdo-6.1.0.168-18.x86_64.rpm | 602 kB 00:00:01
(183/186): xorg-x11-drv-wacom-0.34.2-5.el7.x86_64.rpm | 306 kB 00:00:01
(184/186): xorg-x11-server-Xorg-1.19.5-5.1.el7_5.x86_64.rpm | 1.5 MB 00:00:00
(185/186): xorg-x11-server-common-1.19.5-5.1.el7_5.x86_64.rpm | 53 kB 00:00:00
(186/186): yum-utils-1.1.31-46.el7_5.noarch.rpm | 120 kB 00:00:00
```

```
(163/186): spice-glib-0.34-3.el7_5.2.x86_64.rpm | 381 kB 00:00:01
(164/186): spice-server-0.14.0-2.el7_5.5.x86_64.rpm | 492 kB 00:00:01
(165/186): sssd-client-1.16.0-19.el7_5.8.x86_64.rpm | 196 kB 00:00:01
(166/186): subscription-manager-gui-1.20.11-1.el7_5.x86_64.rpm | 618 kB 00:00:01
(167/186): subscription-manager-1.20.11-1.el7_5.x86_64.rpm | 995 kB 00:00:01
(168/186): subscription-manager-plugin-container-1.20.11-1.el7_5.x86_64.rpm | 285 kB 00:00:01
(169/186): subscription-manager-initial-setup-addon-1.20.11-1.el7_5.x86_64.rpm | 289 kB 00:00:01
(170/186): subscription-manager-rhsm-1.20.11-1.el7_5.x86_64.rpm | 285 kB 00:00:00
(171/186): subscription-manager-rhsm-certificates-1.20.11-1.el7_5.x86_64.rpm | 280 kB 00:00:01
(172/186): sudo-1.8.19p2-14.el7_5.x86_64.rpm | 1.1 MB 00:00:01
(173/186): systemd-219-57.el7_5.3.x86_64.rpm | 5.0 MB 00:00:01
(174/186): systemd-libs-219-57.el7_5.3.x86_64.rpm | 482 kB 00:00:01
(175/186): systemd-python-219-57.el7_5.3.x86_64.rpm | 129 kB 00:00:01
(176/186): systemd-sysv-219-57.el7_5.3.x86_64.rpm | 88 kB 00:00:01
(177/186): systemtap-runtime-3.2-8.el7_5.x86_64.rpm | 404 kB 00:00:01
(178/186): tuned-2.9.0-1.el7_5.2.noarch.rpm | 244 kB 00:00:01
(179/186): tzdata-2018f-2.el7.noarch.rpm | 484 kB 00:00:00
(180/186): tzdata-java-2018f-2.el7.noarch.rpm | 185 kB 00:00:01
(181/186): util-linux-2.23.2-52.el7_5.1.x86_64.rpm | 2.0 MB 00:00:00
(182/186): vdo-6.1.0-168-18.x86_64.rpm | 602 kB 00:00:01
(183/186): xorg-x11-drv-wacom-0.34.2-5.el7.x86_64.rpm | 306 kB 00:00:01
(184/186): xorg-x11-server-Xorg-1.19.5-5.1.el7_5.x86_64.rpm | 1.5 MB 00:00:00
(185/186): xorg-x11-server-common-1.19.5-5.1.el7_5.x86_64.rpm | 53 kB 00:00:00
(186/186): yum-utils-1.1.31-46.el7_5.noarch.rpm | 120 kB 00:00:00
```

合計
file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release から鍵を取得中です。
Importing GPG key 0xF0D431D51:
Userid : "Red Hat, Inc. (release key 2) <security@redhat.com>"
Fingerprint: 567e 347a d004 4ade 55ba 8a5f 199e 2f91 fd43 1d51
Package : redhat-release-server-7.5-8.el7.x86_64 (@anaconda)
From : /etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
上記の処理を行います。よろしいでしょうか？ [y/N]y

```
(169/186): subscription-manager-initial-setup-addon-1.20.11-1.el7_5.x86_64.rpm | 209 kB 00:00:01
(170/186): subscription-manager-rhsm-1.20.11-1.el7_5.x86_64.rpm | 285 kB 00:00:00
(171/186): subscription-manager-rhsm-certificates-1.20.11-1.el7_5.x86_64.rpm | 200 kB 00:00:01
(172/186): sudo-1.8.19p2-14.el7_5.x86_64.rpm | 1.1 MB 00:00:01
(173/186): systemd-219-57.el7_5.3.x86_64.rpm | 5.0 MB 00:00:01
(174/186): systemd-libs-219-57.el7_5.3.x86_64.rpm | 402 kB 00:00:01
(175/186): systemd-python-219-57.el7_5.3.x86_64.rpm | 129 kB 00:00:01
(176/186): systemd-sysv-219-57.el7_5.3.x86_64.rpm | 88 kB 00:00:01
(177/186): systemtap-runtime-3.2-8.el7_5.x86_64.rpm | 404 kB 00:00:01
(178/186): tuned-2.9.0-1.el7_5.2.noarch.rpm | 244 kB 00:00:01
(179/186): tzdata-2018f-2.el7.noarch.rpm | 484 kB 00:00:00
(180/186): tzdata-java-2018f-2.el7.noarch.rpm | 185 kB 00:00:01
(181/186): util-linux-2.23.2-52.el7_5.1.x86_64.rpm | 2.0 MB 00:00:00
(182/186): vdo-6.1.0-168-18.x86_64.rpm | 602 kB 00:00:01
(183/186): xorg-x11-drv-wacom-0.34.2-5.el7.x86_64.rpm | 306 kB 00:00:01
(184/186): xorg-x11-server-Xorg-1.19.5-5.1.el7_5.x86_64.rpm | 1.5 MB 00:00:00
(185/186): xorg-x11-server-common-1.19.5-5.1.el7_5.x86_64.rpm | 53 kB 00:00:00
(186/186): yum-utils-1.1.31-46.el7_5.noarch.rpm | 120 kB 00:00:00
```

合計
file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release から鍵を取得中です。
Importing GPG key 0xF0D431D51:
Userid : "Red Hat, Inc. (release key 2) <security@redhat.com>"
Fingerprint: 567e 347a d004 4ade 55ba 8a5f 199e 2f91 fd43 1d51
Package : redhat-release-server-7.5-8.el7.x86_64 (@anaconda)
From : /etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
上記の処理を行います。よろしいでしょうか？ [y/N]y
Importing GPG key 0x2FA658E0:
Userid : "Red Hat, Inc. (auxiliary key) <security@redhat.com>"
Fingerprint: 43a6 e49c 4a38 f4be 9abf 2a53 4568 9c88 2fa6 58e0
Package : redhat-release-server-7.5-8.el7.x86_64 (@anaconda)
From : /etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
上記の処理を行います。よろしいでしょうか？ [y/N]y

プロンプトが戻ってくるまで待つ。

RHELを再起動する。

公式リポジトリをインストールする

rootユーザーにスイッチする。

su -

yum install -y yum-utils device-mapper-persistent-data lvm2

```
root@mubk-aml-lib:~# su -
[パスワード]:
最終ログイン: 2021/01/27 (水) 01:15:38 JST 日時 pts/0
[root@mubk-aml-lib ~]# history -c
[root@mubk-aml-lib ~]# yum install -y yum-utils device-mapper-persistent-data lvm2
読み込んだプラグイン: langpacks, product-id, search-disabled-repos, subscription-manager
整理中 : 7:device-mapper-libs-1.02.146-4.el7.x86_64 15/16
整理中 : device-mapper-persistent-data-0.7.3-3.el7.x86_64 16/16
検証中 : 7:lvm2-2.02.187-6.el7_9.3.x86_64 1/16
検証中 : 7:device-mapper-event-1.02.170-6.el7_9.3.x86_64 2/16
検証中 : device-mapper-persistent-data-0.8.5-3.el7_9.2.x86_64 3/16
検証中 : 7:device-mapper-libs-1.02.170-6.el7_9.3.x86_64 4/16
検証中 : 7:device-mapper-event-libs-1.02.170-6.el7_9.3.x86_64 5/16
検証中 : 7:lvm2-libs-2.02.187-6.el7_9.3.x86_64 6/16
検証中 : 7:device-mapper-1.02.170-6.el7_9.3.x86_64 7/16
検証中 : yum-utils-1.1.31-54.el7.noarch 8/16
検証中 : device-mapper-persistent-data-0.7.3-3.el7.x86_64 9/16
検証中 : 7:device-mapper-event-libs-1.02.146-4.el7.x86_64 10/16
検証中 : 7:device-mapper-1.02.146-4.el7.x86_64 11/16
検証中 : 7:device-mapper-event-1.02.146-4.el7.x86_64 12/16
検証中 : 7:lvm2-libs-2.02.177-4.el7.x86_64 13/16
検証中 : 7:lvm2-2.02.177-4.el7.x86_64 14/16
検証中 : 7:device-mapper-libs-1.02.146-4.el7.x86_64 15/16
検証中 : yum-utils-1.1.31-46.el7_5.noarch 16/16

更新:
device-mapper-persistent-data.x86_64 0:0.8.5-3.el7_9.2          lvm2.x86_64 7:2.02.187-6.el7_9.3
yum-utils.noarch 0:1.1.31-54.el7_8

依存性を更新しました:
device-mapper.x86_64 7:1.02.170-6.el7_9.3
device-mapper-event-libs.x86_64 7:1.02.170-6.el7_9.3
lvm2-libs.x86_64 7:2.02.187-6.el7_9.3          device-mapper-event.x86_64 7:1.02.170-6.el7_9.3
                                                    device-mapper-libs.x86_64 7:1.02.170-6.el7_9.3

完了しました!
[root@mubk-aml-lib ~]#
```

```

検証中 : 7:lvm2-2.02.177-4.el7.x86_64
検証中 : 7:device-mapper-libs-1.02.146-4.el7.x86_64
          : yum-utils-1.1.31-46.el7_5.noarch
          : yum-utils-0:1.1.31-54.el7_8

更新 :
device-mapper-persistent-data.x86_64 0:0.8.5-3.el7_9.2           lvm2.x86_64 7:2.02.187-6.el7_9.3
yum-utils.noarch 0:1.1.31-54.el7_8

依存性を更新しました:
device-mapper.x86_64 7:1.02.170-6.el7_9.3           device-mapper-event.x86_64 7:1.02.170-6.el7_9.3
device-mapper-event-libs.x86_64 7:1.02.170-6.el7_9.3       device-mapper-libs.x86_64 7:1.02.170-6.el7_9.3
lvm2-libs.x86_64 7:2.02.187-6.el7_9.3

完了しました!
[root@mubk-aml-lib ~]# 

```

レポジトリの追加

```
yum-config-manager --add-repo https://download.docker.com/linux/rhel/docker-ce.repo
```

```
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# yum-config-manager --add-repo https://download.docker.com/linux/rhel/docker-ce.repo
読み込んだプラグイン: langpacks, product-id, subscription-manager
adding repo from: https://download.docker.com/linux/rhel/docker-ce.repo
grabbing file https://download.docker.com/linux/rhel/docker-ce.repo to /etc/yum.repos.d/docker-ce.repo
repo saved to /etc/yum.repos.d/docker-ce.repo
[root@mubk-aml-lib ~]#
```

yumのパッケージインデックスを更新

(DockerのINSTALLやUPGRADEの前に一回実行することが推奨されている)

Docker-ce.repoの中の [docker-ce-stable] のbaseurlを修正

修正前	baseurl=https://download.docker.com/linux/rhel/7/\$basearch/stable
修正後	baseurl=https://download.docker.com/linux/rhel/7/source/stable

```
vi /etc/yum.repos.d/docker-ce.repo
```

```

root@mubk-aml-lib:~#
ファイル(F) 編集(E) 表示(V) 検索(S) 端末(T) ヘルプ(H)
[docker-ce-stable]
name=Docker CE Stable - $basearch
#baseurl=https://download.docker.com/linux/rhel/7/$basearch/stable
baseurl=https://download.docker.com/linux/rhel/7/source/stable
enabled=1
gpgcheck=1
gpgkey=https://download.docker.com/linux/rhel/gpg

[docker-ce-stable-debuginfo]
name=Docker CE Stable - Debuginfo $basearch
baseurl=https://download.docker.com/linux/rhel/7/debug-$basearch/stable
enabled=0
gpgcheck=1
gpgkey=https://download.docker.com/linux/rhel/gpg

[docker-ce-stable-source]
name=Docker CE Stable - Sources
baseurl=https://download.docker.com/linux/rhel//source/stable
enabled=0
gpgcheck=1
gpgkey=https://download.docker.com/linux/rhel/gpg

[docker-ce-test]
name=Docker CE Test - $basearch
baseurl=https://download.docker.com/linux/rhel/7/$basearch/test
enabled=0
gpgcheck=1
gpgkey=https://download.docker.com/linux/rhel/gpg

-- INSERT --

```

```
vi /etc/yum.repos.d/docker-ce.repo
```

```
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# yum makecache fast
読み込んだプラグイン: langpacks, product-id, search-disabled-repos, subscription-manager
docker-ce-stable
epel/x86_64/metalink
rhel-7-server-rpms
(1/2): docker-ce-stable/updateinfo
(2/2): docker-ce-stable/primary_db
メタデータのキャッシュを作成しました
[root@mubk-aml-lib ~]# 
```

インストール

```
subscription-manager repos --enable=rhel-7-server-extras-rpms
```

```
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# subscription-manager repos --enable=rhel-7-server-extras-rpms
リポジトリ 'rhel-7-server-extras-rpms' は、このシステムに対して有効になっています。
[root@mubk-aml-lib ~]# 
```

setup

```
yum install docker -y
```

```
[root@mubk-aml-lib ~]# [root@mubk-aml-lib ~]# [root@mubk-aml-lib ~]# yum install docker -y [16/26]: libsepol-2.5-10.el7.x86_64.rpm | 297 kB 00:00:00 [17/26]: oci-register-machine-0.6.gitb44233.el7.x86_64.rpm | 1.1 MB 00:00:00 [18/26]: oci-umount-2.5-3.el7.x86_64.rpm | 33 kB 00:00:00 [19/26]: python-pytoml-0.1.14-1.git7dea353.el7.noarch.rpm | 18 kB 00:00:00 [20/26]: policycoreutils-2.5-34.el7.x86_64.rpm | 917 kB 00:00:00 [21/26]: selinux-policy-3.13.1-268.el7_9.2.noarch.rpm | 498 kB 00:00:00 [22/26]: oci-systemd-hook-0.2.0-1.git05e6923.el7_6.x86_64.rpm | 34 kB 00:00:02 [23/26]: selinux-policy-targeted-3.13.1-268.el7_9.2.noarch.rpm | 7.0 MB 00:00:00 [24/26]: policycoreutils-python-2.5-34.el7.x86_64.rpm | 457 kB 00:00:01 [25/26]: setools-libs-3.3.8-4.el7.x86_64.rpm | 620 kB 00:00:00 [26/26]: slirp4netns-0.4.3-4.el7_8.x86_64.rpm | 82 kB 00:00:00 ----- 合計 3.8 MB/s | 36 MB 00:00:09 Running transaction check 2/37 Running transaction test 3/37 Transaction test succeeded 4/37 Running transaction 5/37 更新します : libsepol-2.5-10.el7.x86_64 5/37 1/37 更新します : libselinux-2.5-15.el7.x86_64 2/37 2/37 更新します : libsemanage-2.5-14.el7.x86_64 3/37 3/37 更新します : libselinux-utils-2.5-15.el7.x86_64 4/37 4/37 更新します : policycoreutils-2.5-34.el7.x86_64 5/37 5/37 更新します : selinux-policy-3.13.1-268.el7_9.2.noarch 6/37 6/37 更新します : selinux-policy-targeted-3.13.1-268.el7_9.2.noarch 7/37 7/37 更新します : libsemanage-python-2.5-14.el7.x86_64 8/37 8/37 更新します : libselinux-python-2.5-15.el7.x86_64 9/37 9/37 更新します : setools-libs-3.3.8-4.el7.x86_64 10/37 10/37 更新します : policycoreutils-python-2.5-34.el7.x86_64 11/37 11/37 インストール中 : 2:container-selinux-2.119.2-1.911c772.el7_8.noarch 12/37 検証中 : policycoreutils-2.5-22.el7.x86_64 31/37 検証中 : libsepolicy-2.5-8.1.el7.x86_64 32/37 検証中 : policycoreutils-python-2.5-22.el7.x86_64 33/37 検証中 : selinux-policy-targeted-3.13.1-192.el7_5.6.noarch 34/37 検証中 : libselinux-2.5-12.el7.x86_64 35/37 検証中 : libselinux-utils-2.5-12.el7.x86_64 36/37 検証中 : selinux-policy-3.13.1-192.el7_5.6.noarch 37/37 インストール : docker.x86_64 2:1.13.1-203.git0be3e21.el7_9 依存性関連をインストールしました: atomic-registrations.x86_64 1:1.22.1-33.gitb507039.el7_8 container-storage-setup.noarch 0:0.11.0-2.git5eaf76c.el7_8 docker-client.x86_64 2:1.13.1-203.git0be3e21.el7_9 docker-rhel-push-plugin.x86_64 2:1.13.1-203.git0be3e21.el7_9 fuse3-libs.x86_64 0:3.6.1-4.el7 policycoreutils.x86_64 0:2.5-34.el7_6 oci-systemd-hook.x86_64 1:0.2.0-1.git05e6923.el7_6 python-pytoml.noarch 0:0.1.14-1.git7dea353.el7_6 container-selinux.noarch 2:2.119.2-1.911c772.el7_8 containers-common.x86_64 1:0.1.40-12.el7_9 docker-common.x86_64 2:1.13.1-203.git0be3e21.el7_9 fuse-overlayfs.x86_64 0:0.7.2-6.el7_8 oci-register-machine.x86_64 1:0-6.git2b44233.el7_8 oci-umount.x86_64 2:2.5-3.el7_8 slirp4netns.x86_64 0:0.4.3-4.el7_8 依存性を更新しました: libselinux.x86_64 0:2.5-15.el7_8 libselinux-utils.x86_64 0:2.5-15.el7_8 libsemanage-python.x86_64 0:2.5-14.el7_9 policycoreutils.x86_64 0:2.5-34.el7_6 selinux-policy.noarch 0:3.13.1-268.el7_9.2 setools-libs.x86_64 0:3.3.8-4.el7_8 libsandbox.x86_64 0:2.5-15.el7_8 libsemanage.x86_64 0:2.5-14.el7_9 libsepolicy.x86_64 0:2.5-10.el7_8 policycoreutils-python.x86_64 0:2.5-34.el7_6 selinux-policy-targeted.noarch 0:3.13.1-268.el7_9.2 完了しました! [root@mubk-aml-lib ~]#
```

サービスの起動、有効化

```
systemctl start docker.service  
systemctl enable docker.service  
systemctl status docker.service
```

```
root@mubk-aml-lib:~# ファイル(F) 編集(E) 表示(V) 検索(S) 端末(T) ヘルプ(H)  
[root@mubk-aml-lib ~]# [root@mubk-aml-lib ~]# [root@mubk-aml-lib ~]# systemctl start docker.service  
[root@mubk-aml-lib ~]# systemctl enable docker.service  
Created symlink from /etc/systemd/system/multi-user.target.wants/docker.service to /usr/lib/systemd/system/docker.service.  
[root@mubk-aml-lib ~]# [root@mubk-aml-lib ~]# systemctl status docker.service  
● docker.service - Docker Application Container Engine  
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor preset: disabled)  
     Active: active (running) since 水 2021-01-27 02:42:53 JST; 21s ago  
       Docs: http://docs.docker.com  
     Main PID: 31005 (dockerd-current)  
        Tasks: 26  
      CGroup: /system.slice/docker.service  
              └─31005 /usr/bin/dockerd-current --add-runtime docker-runc=/usr/libexec/docker/docker-runc-current --d...  
1月 27 02:42:51 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:51.114784584+09:00" level=info ...014"  
1月 27 02:42:52 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:52.350586206+09:00" level=info ...nd..."  
1月 27 02:42:52 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:52.352546865+09:00" level=info ...rt."  
1月 27 02:42:52 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:52.379162179+09:00" level=info ...rue"  
1月 27 02:42:52 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:52.721051308+09:00" level=info ...ess"  
1月 27 02:42:52 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:52.972731142+09:00" level=info ...ne."  
1月 27 02:42:52 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:52.972731142+09:00" level=info ...an"
```

setup

```
[root@mubk-aml-lib ~]# curl -L "https://github.com/docker/docker/releases/download/1.27.4/docker-1.27.4.linux-x86_64.tar.gz" | tar -C /tmp -xzf -
1月 27 02:42:53 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:53.012925378+09:00" level=info ...
1月 27 02:42:53 mubk-aml-lib dockerd-current[31005]: time="2021-01-27T02:42:53.022566778+09:00" level=info ...
Hint: Some lines were ellipsized, use -l to show in full.
[root@mubk-aml-lib ~]#
```

バージョンの確認

```
docker -v
```

```
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# docker -v
Docker version 1.13.1, build 0be3e21/1.13.1
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
```

コンテナ起動する

```
docker run --rm hello-world
```

```
root@mubk-aml-lib:~#
ファイル(F)　編集(E)　表示(V)　検索(S)　端末(T)　ヘルプ(H)
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# docker run --rm hello-world
Unable to find image 'hello-world:latest' locally
Trying to pull repository registry.access.redhat.com/hello-world ...
Pulling repository registry.access.redhat.com/hello-world
Trying to pull repository registry.redhat.io/hello-world ...
Trying to pull repository docker.io/library/hello-world ...
latest: Pulling from docker.io/library/hello-world
0e03bdcc26d7: Pull complete
Digest: sha256:31b9c7d48790f0d8c50ab433d9c3b7e17666d6993084c002c2ff1ca09b96391d
Status: Downloaded newer image for docker.io/hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
[root@mubk-aml-lib ~]#
```

docker compose のダウンロード

```
curl -L "https://github.com/docker/compose/releases/download/1.27.4/docker-compose-Linux-x86_64"
```

```
[root@mubk-aml-lib ~]# curl -L "https://github.com/docker/compose/releases/download/1.27.4/docker-compose-Linux-x86_64" -o /usr/local/bin/docker-compose
% Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload  Upload   Total Spent  Left Speed
100  651  100  651    0     0  938      0 --:--:-- --:--:-- --:--:--   938
100 11.6M 100 11.6M    0     0  770K      0  0:00:15  0:00:15 --:--:-- 1741k
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
```

実行可能権限の適用,バージョンの確認

```
chmod +x /usr/local/bin/docker-compose
docker-compose -v
```

```
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# chmod +x /usr/local/bin/docker-compose
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# docker-compose -v
docker-compose version 1.27.4, build 40524192
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
```

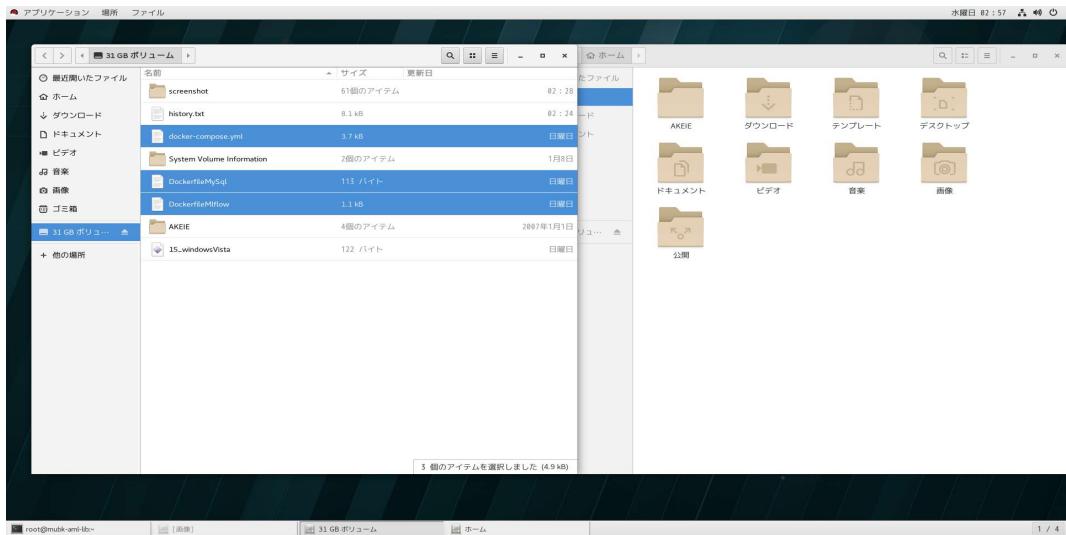
setup

コンテナ作成

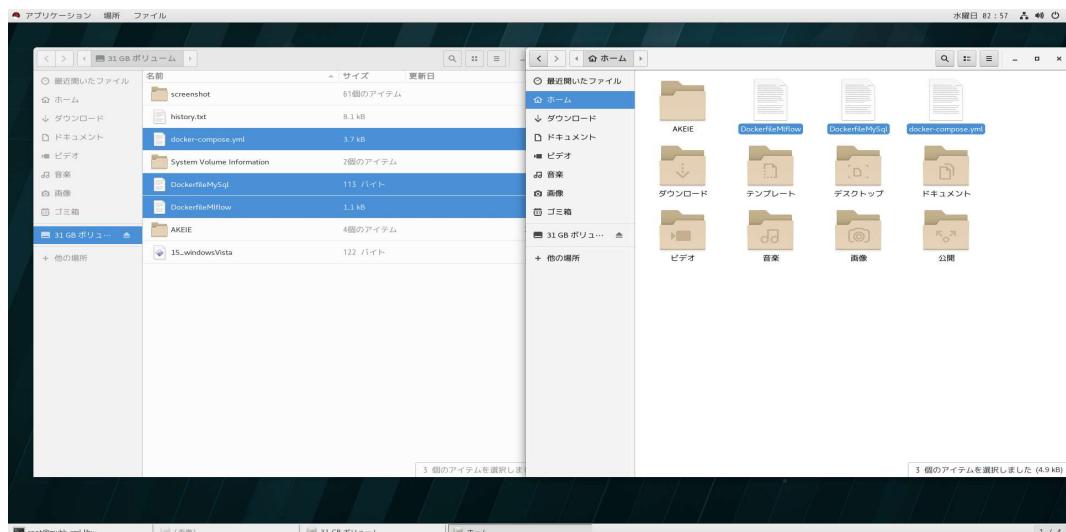
USBメモリを差し込む

開いた画面を左に

ホーム画面を開いたものを右に配置する



左のUSBメモリの中身から、3つのファイルを右のホーム画面(/home/mubk-aml-lib)にコピーする



/root以下にaml_aiディレクトリを作成する。

```
cd /root  
mkdir aml_ai  
chmod 777 aml_ai/
```

さきほど/home/mubk-aml-libにコピーした3つのファイルを /root/ml_aiにコピーする

```
cp /home/mubk-aml-lib/docker-compose.yml /root/ml_ai/  
cp /home/mubk-aml-lib/DockerfileMiflow /root/ml_ai/  
cp /home/mubk-aml-lib/DockerfileMySQL /root/ml_ai/  
cd ml_ai/
```

setup

```
root@mubk-aml-lib:~/aml_ai
[ファイル(F) 編集(E) 表示(V) 検索(S) 端末(T) ヘルプ(H)
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# cd aml_ai/
[root@mubk-aml-lib aml_ai]# ls -l
合計 0
[root@mubk-aml-lib aml_ai]# cd ..
[root@mubk-aml-lib ~]# ls -l
合計 8
drwxr-xr-x. 2 root root 6 1月 27 02:55 aml_ai
-rw-----. 1 root root 1698 1月 1 2007 anaconda-ks.cfg
-rw-r--r--. 1 root root 1774 1月 1 2007 initial-setup-ks.cfg
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# chmod 777 aml_ai/
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# ls -l
合計 8
drwxrwxrwx. 2 root root 6 1月 27 02:55 aml_ai
-rw-----. 1 root root 1698 1月 1 2007 anaconda-ks.cfg
-rw-r--r--. 1 root root 1774 1月 1 2007 initial-setup-ks.cfg
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# cp /home/mubk-aml-lib/docker-compose.yml /root/aml_ai/
[root@mubk-aml-lib ~]# cp /home/mubk-aml-lib/DockerfileMlflow /root/aml_ai/
[root@mubk-aml-lib ~]# cp /home/mubk-aml-lib/DockerfileMySQL /root/aml_ai/
[root@mubk-aml-lib ~]#
[root@mubk-aml-lib ~]# pwd
/root
[root@mubk-aml-lib ~]# cd aml_ai/
[root@mubk-aml-lib aml_ai]# ls -l
合計 12
-rw-r--r--. 1 root root 1089 1月 27 02:58 DockerfileMlflow
-rw-r--r--. 1 root root 115 1月 27 02:58 DockerfileMySQL
-rw-r--r--. 1 root root 3723 1月 27 02:57 docker-compose.yml
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]#
```

docker-compose up -d minio

```
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]# docker-compose up -d minio
Creating network "aml_ai_default" with the default driver
Creating volume "aml_ai_mysql_db" with default driver
Creating volume "aml_ai_github_etc" with default driver
Creating volume "aml_ai_github_log" with default driver
Creating volume "aml_ai_github_opt" with default driver
Creating volume "aml_ai_minio_data" with default driver
Pulling minio (minio/minio:latest)...
Trying to pull repository registry.access.redhat.com/minio/minio ...
Pulling repository registry.access.redhat.com/minio/minio
Trying to pull repository registry.redhat.io/minio/minio ...
Trying to pull repository docker.io/minio/minio ...
latest: Pulling from docker.io/minio/minio
a6b97b4963f5: Pull complete
13948a0a11eec: Pull complete
1e26182a61be: Pull complete
757eedad3ef9: Pull complete
b05842f6a033: Pull complete
e3529c022e9c: Pull complete
b7dc66d79deb: Pull complete
Digest: sha256:fafdf3af791a8c564b73d995ef3f8d7bde4d0caf25b32bec3a11dc71a9096479a
Status: Downloaded newer image for docker.io/minio/minio:latest
Creating aml_ai_minio ... done
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]#
```

docker-compose up -d mysql

```
root@mubk-aml-lib:~/aml_ai
[ファイル(F) 編集(E) 表示(V) 検索(S) 端末(T) ヘルプ(H)
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]#
[root@mubk-aml-lib aml_ai]# docker-compose up -d mysql
Building mysql
Step 1/2 : FROM mysql:5.7
Trying to pull repository registry.access.redhat.com/mysql ...
Pulling repository registry.access.redhat.com/mysql
Trying to pull repository registry.redhat.io/mysql ...
Trying to pull repository docker.io/library/mysql ...
5.7: Pulling from docker.io/library/mysql
a076a628af6f: Pull complete
fc1208f3f991: Pull complete
88a9455a9165: Pull complete
406c9b8427c6: Pull complete
7c88599c0b25: Pull complete
25b5c6debdaef: Pull complete
43a5816f1617: Pull complete
1831ac1245f4: Pull complete
37677b8c1f79: Pull complete
27e4ac3b0f6e: Pull complete
7227baa8c445: Pull complete
Digest: sha256:b3d1eff023f698cd433695c9506171f0d08a8f92a0c8063c1a4d9db9a55808df
Status: Downloaded newer image for docker.io/mysql:5.7
--> a70d36bc331a
Step 2/2 : RUN touch /var/log/mysql/mysql.log
-->> Running in b23c40ca8f99

--> d98a971cd635
Removing intermediate container b23c40ca8f99
Successfully built d98a971cd635
WARNING: Image for service mysql was built because it did not already exist. To rebuild this image you must use 'docker-compose build' or 'docker-compose up --build'.
Creating aml_ai_mysql ... done
[root@mubk-aml-lib aml_ai]#
```

setup

docker-compose ps

```
[root@mubk-aml-lib aml_ail]# docker-compose ps
      Name          Command         State           Ports
----- 
aml_ai_minio   /usr/bin/docker-entrypoint ...   Up      0.0.0.0:9000->9000/tcp
aml_ai_mysql   docker-entrypoint.sh mysqld    Up      0.0.0.0:3306->3306/tcp, 33060/tcp
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]#
```

docker-compose up -d mlflow

```
[root@mubk-aml-lib aml_ail]# docker-compose up -d mlflow
Building wheel for Mako (setup.py): finished with status 'done'
Created wheel for Mako: filename=Mako-1.1.4-py2.py3-none-any.whl size=75675 sha256=448c6c113cf8f41ddfd50364116262d
9c18dcf3c58083349efc2a7ff43f03431f
Stored in directory: /root/.cache/pip/wheels/cd/56/62/f7e8f1528d26bbdd5d1ea7693b945b4cbef4bbaa0db0bea2b0
Building wheel for prometheus-flask-exporter (setup.py): started
Building wheel for prometheus-flask-exporter (setup.py): finished with status 'done'
Created wheel for prometheus-flask-exporter: filename=prometheus.flask.exporter-0.18.1-py3-none-any.whl size=17158
sha256=9375143d499281fcf5beaf74b50bb5aae1be3918c66d17258da91b41aecae7b
Stored in directory: /root/.cache/pip/wheels/ae/ee/32/c6e2f264ebc6628410ea44d91a8aafb6a7fffd4bda0651e
Successfully built PyYAML alembic databricks-cli mysqlclient MarkupSafe Mako prometheus-flask-exporter
Installing collected packages: urllib3, idna, chardet, certifi, six, requests, pycparser, oauthlib, MarkupSafe, Werkzeug, smmap, requests-oauthlib, python-dateutil, jmespath, Jinja2, itsdangerous, isodate, click, cffi, websocket-client, tabulate, sqlalchemy, pytz, python-editor, pyasn1, prometheus-client, numpy, msrest, Mako, gitdb, Flask, cryptography, botocore, azure-core, sqlparse, s3transfer, rsa, querystring-parser, PyYAML, protobuf, prometheus-flask-exporter, pandas, gunicorn, gipython, entrypoints, docutils, docker, databricks-cli, colorama, cloudpickle, azure-storage-blob, alembic, mysqlclient, mlflow, boto3, awscli
Successfully installed Flask-1.1.2 Jinja2-2.11.2 Mako-1.1.4 MarkupSafe-1.1.1 PyYAML-5.3.1 Werkzeug-1.0.1 alembic-1.4.1.awscli-1.18.219.azure-core-1.10.0.azure-storage-blob-12.7.1 boto3-1.16.59.botoCore-1.19.59.certifi-2020.12.5.cffi-1.14.0.chardet-4.0.0.click-7.1.2.cloudpickle-1.6.0.colorama-0.4.3.cryptography-3.3.1.databricks-cli-0.14.1.docker-4.4.1.dutils-0.15.2.entrypoints-0.3.gitdb-4.0.5.gipython-3.1.12.gunicorn-20.0.4.idna-2.10.isodate-0.6.0.itsdangerous-1.1.0.jmespath-0.10.0.mlflow-1.13.1.msrest-0.6.20.mysqlclient-2.0.3.numpy-1.19.5.oauthlib-3.1.0.pandas-1.2.1.prometheus-client-0.9.0.prometheus-flask-exporter-0.18.1.protobuf-3.14.0.pyasn1-0.4.8.pycparser-2.20.python-dateutil-2.8.1.python-editor-1.0.4.pytz-2020.5.querystring-parser-1.2.4.requests-2.25.1.requests-oauthlib-1.3.0.rsa-4.5.s3transfer-0.3.4.six-1.15.0.smmap-3.0.5.sqlalchemy-1.3.22.sqlparse-0.4.1.tabulate-0.8.7.urllib3-1.26.2.websocket-client-0.57.0
--> 79afdb0d948d
Removing intermediate container 98433f16e325
Successfully built 79afdb0d948d
WARNING: Image for service mlflow was built because it did not already exist. To rebuild this image you must use `docker-compose build` or `docker-compose up --build`.
Creating aml_ail_mlflow ... done
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]#
```

docker-compose up -d gitlab

```
[root@mubk-aml-lib aml_ail]# docker-compose up -d gitlab
```

docker-compose ps

gitlabは起動までに10分位かかる。statusが health:starting → healthy になるまで待つ。

```
root@mubk-aml-lib:~/aml_ail
ファイル(F) 編集(E) 表示(V) 検索(S) 端末(T) ヘルプ(H)

aml_ail_gitlab /assets(wrapper)          Up (health: starting)  0.0.0.0:3022->22/tcp, 0.0.0.0:443->443/tcp,
                0.0.0.0:8081->80/tcp,
                0.0.0.0:8001->8001/tcp

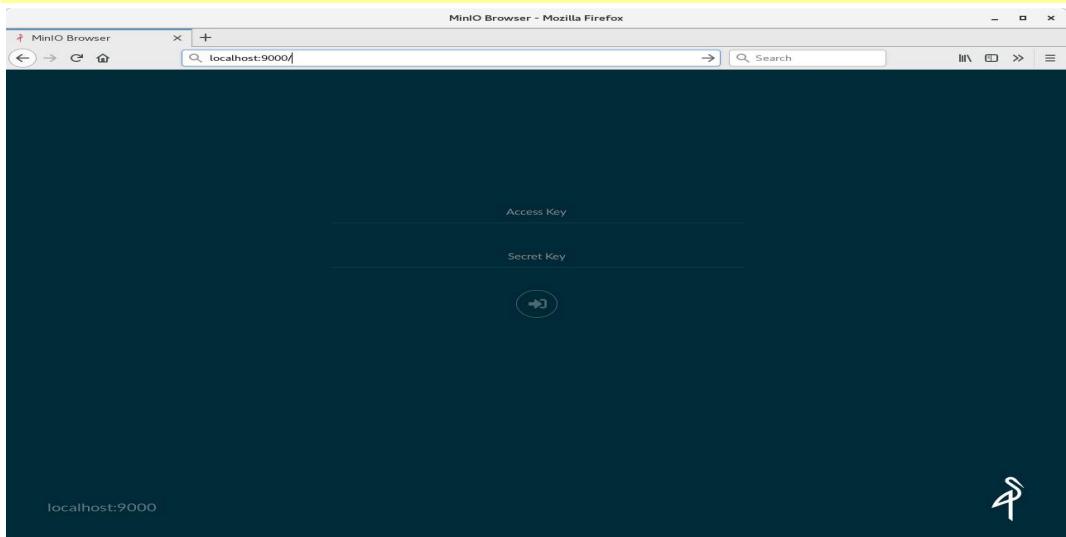
aml_ail_minio  /usr/bin/docker-entrypoint ... Exit 0
aml_ail_mlflow mlflow server --backend-st ... Exit 137
aml_ail_mysql  docker-entrypoint.sh mysqld  Exit 0
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]# docker-compose ps
      Name          Command         State           Ports
----- 
aml_ail_gitlab /assets(wrapper)          Up (health: starting)  0.0.0.0:3022->22/tcp, 0.0.0.0:443->443/tcp,
                0.0.0.0:8081->80/tcp,
                0.0.0.0:8001->8001/tcp

aml_ail_minio  /usr/bin/docker-entrypoint ... Exit 0
aml_ail_mlflow mlflow server --backend-st ... Exit 137
aml_ail_mysql  docker-entrypoint.sh mysqld  Exit 0
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]# docker-compose ps
^[[A      Name          Command         State           Ports
----- 
aml_ail_gitlab /assets(wrapper)          Up (health: starting)  0.0.0.0:3022->22/tcp, 0.0.0.0:443->443/tcp,
                0.0.0.0:8081->80/tcp,
                0.0.0.0:8001->8001/tcp

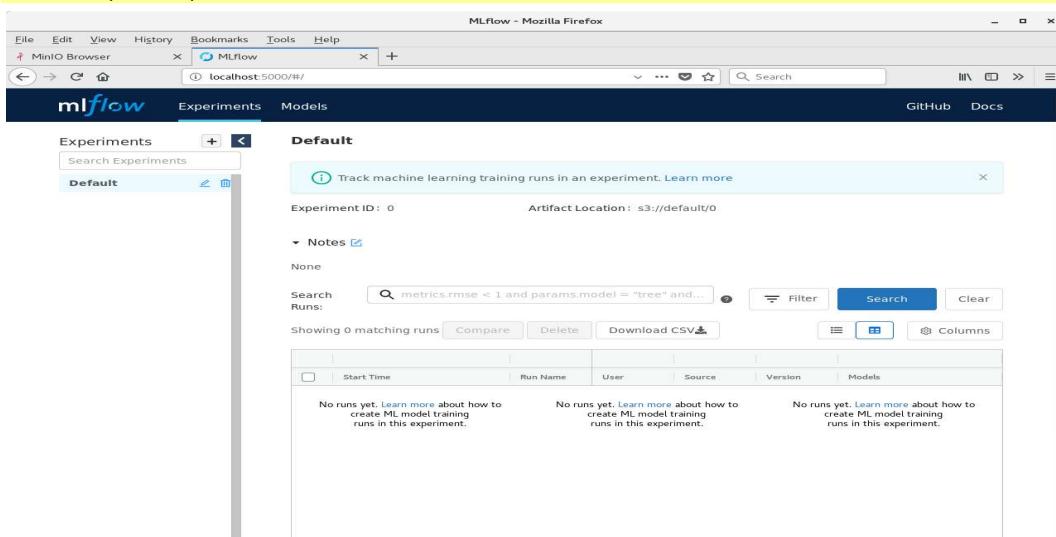
aml_ail_minio  /usr/bin/docker-entrypoint ... Exit 0
aml_ail_mlflow mlflow server --backend-st ... Exit 137
aml_ail_mysql  docker-entrypoint.sh mysqld  Exit 0
[root@mubk-aml-lib aml_ail]#
[root@mubk-aml-lib aml_ail]#
```

setup

稼働確認(minio)



稼働確認(mlflow)



稼働確認/gitlab

※PCのメモリが足りなくて表示できなかった。。

