install

Docker

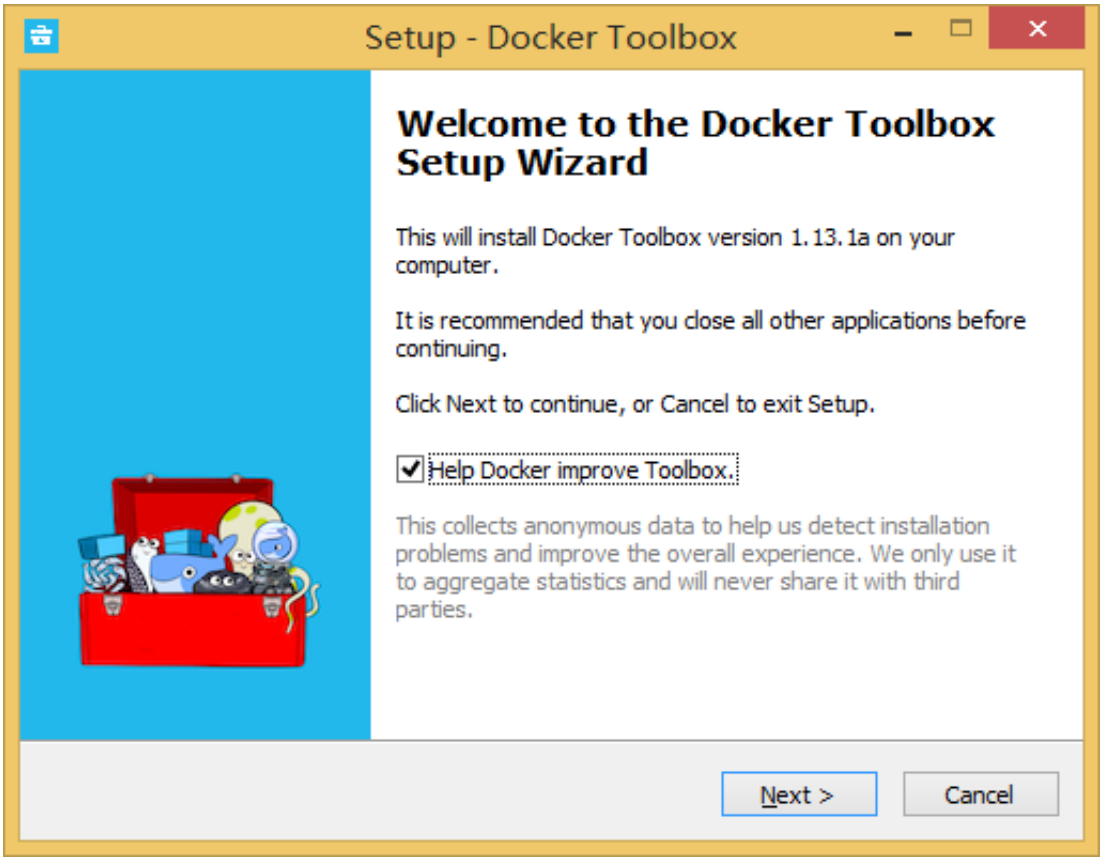
Mac OS (Requires macOS Yosemite 10.10.3 or above)
https://download.docker.com/mac/stable/Docker.dmg

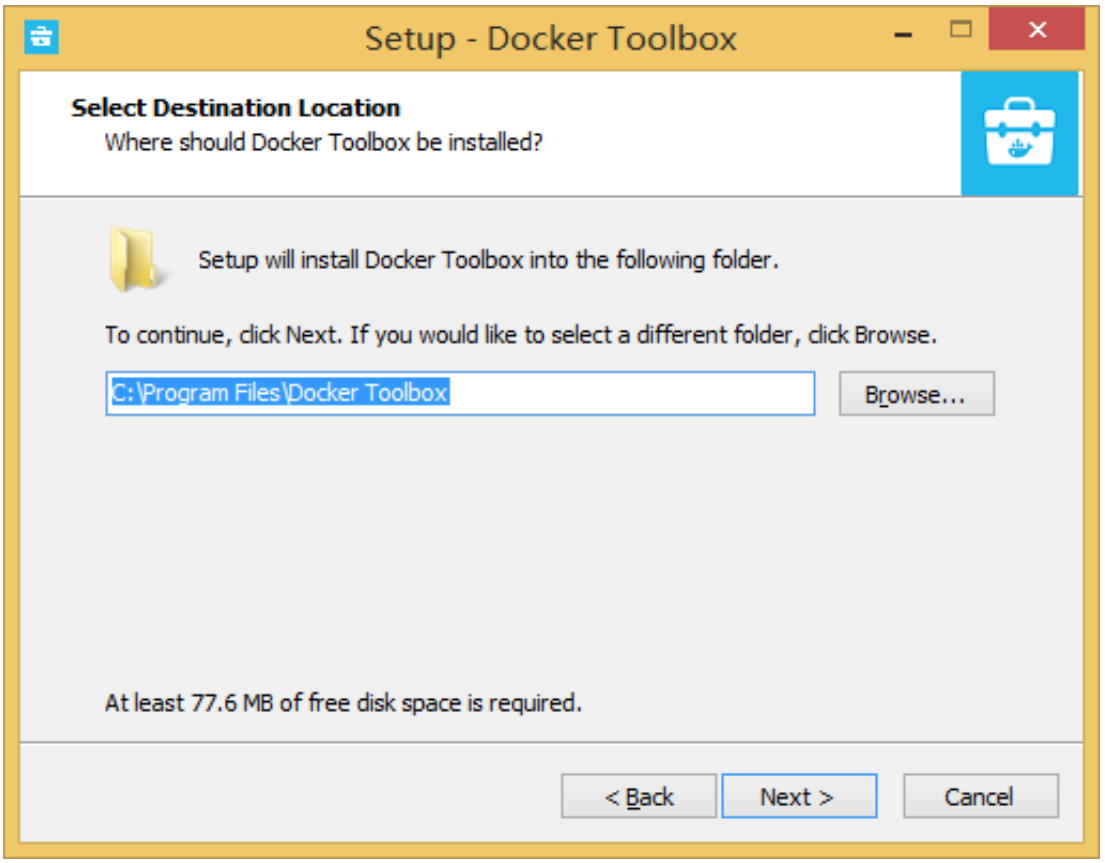
Windows (Requires Windows 10 Professional or Enterprise 64-bit)
https://download.docker.com/win/stable/InstallDocker.msi

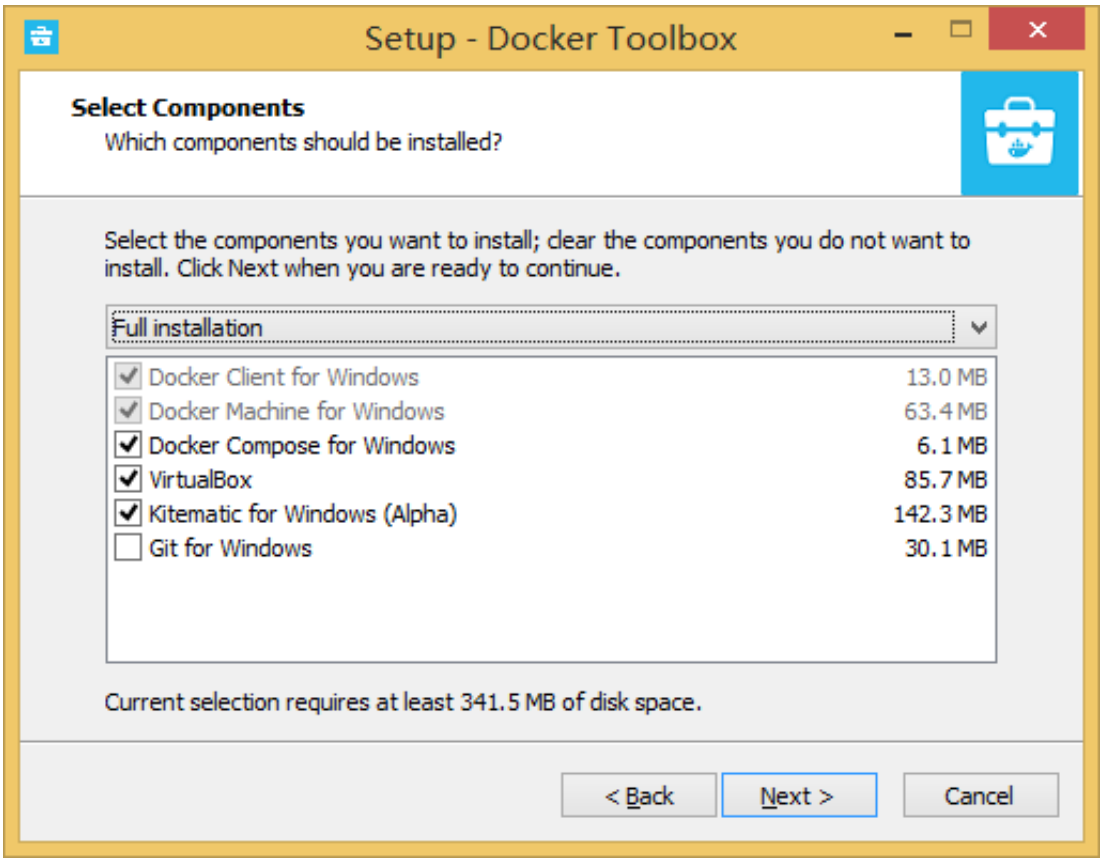
Docker Toolbox

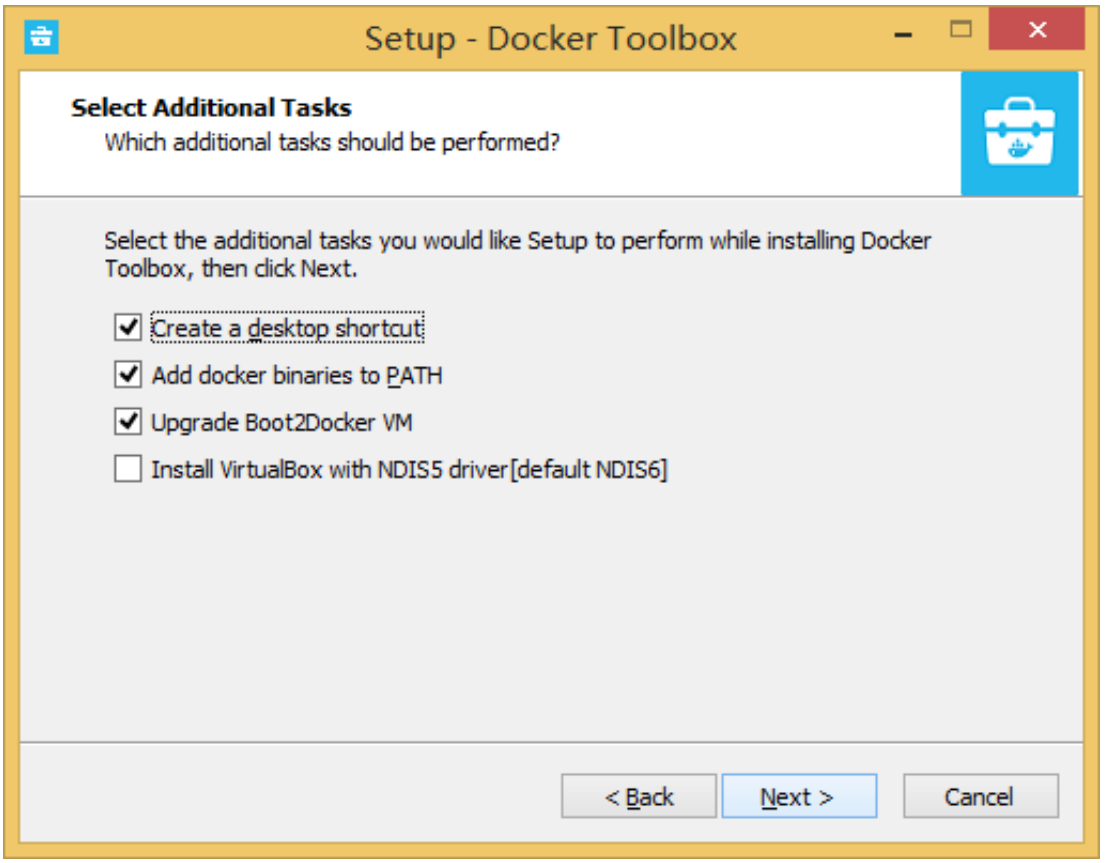
Mac OS
https://docs.docker.com/toolbox/toolbox_install_mac/

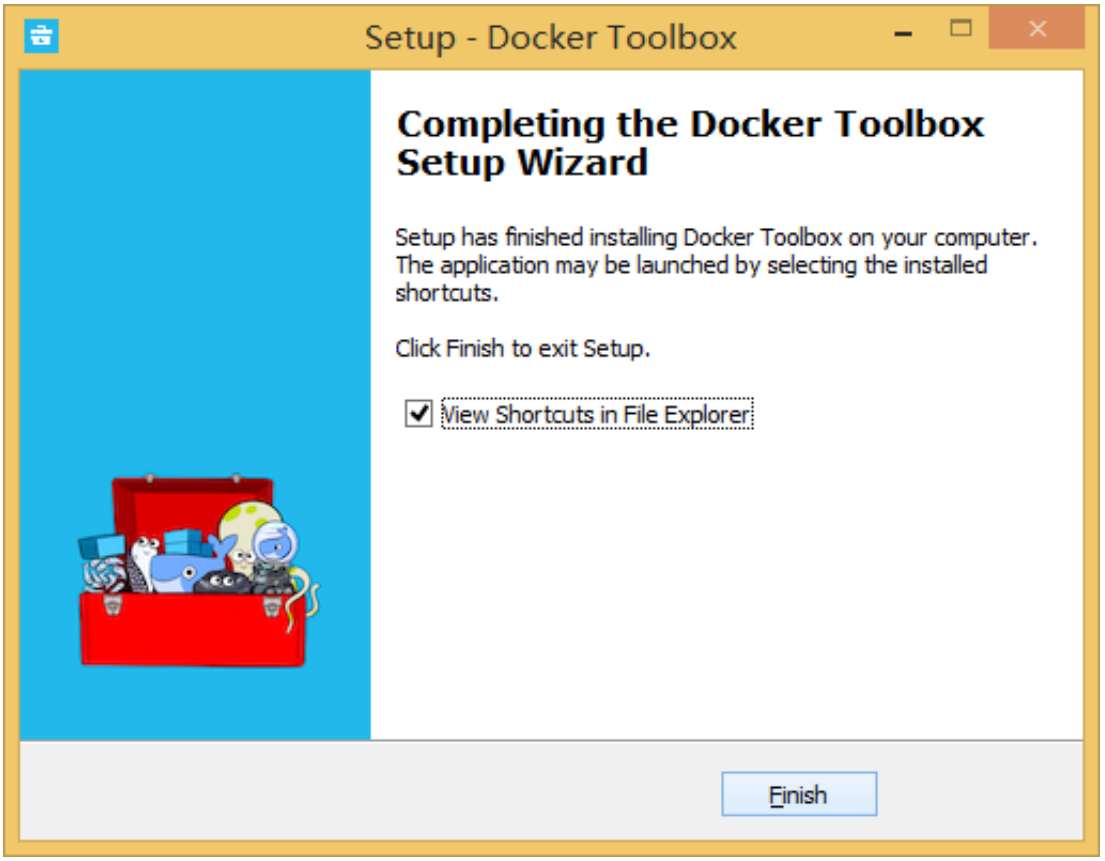
Windows
https://docs.docker.com/toolbox/toolbox_install_windows/




Setup - Docker Toolbox
Select Destination Location
Where should Docker Toolbox be installed?
Setup will install Docker Toolbox into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Docker Toolbox
Browse...
At least 77.6 MB of free disk space is required.
< Back
Next >
Cancel


Setup - Docker Toolbox
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Full installation
Docker Client for Windows 13.0 MB
Docker Machine for Windows 63.4 MB
Docker Compose for Windows 6.1 MB
VirtualBox 85.7 MB
Kitematic for Windows (Alpha) 142.3 MB
Git for Windows 30.1 MB
Current selection requires at least 341.5 MB of disk space.
< Back
Next >
Cancel



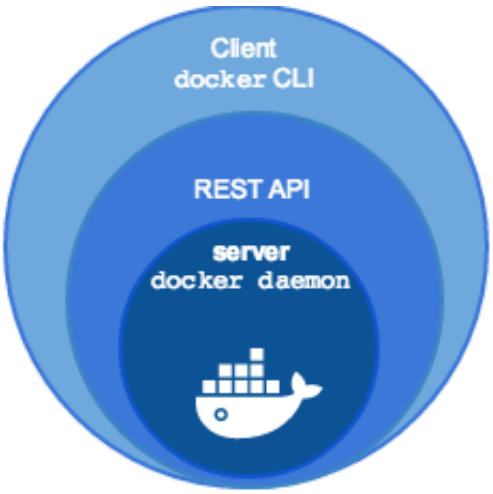


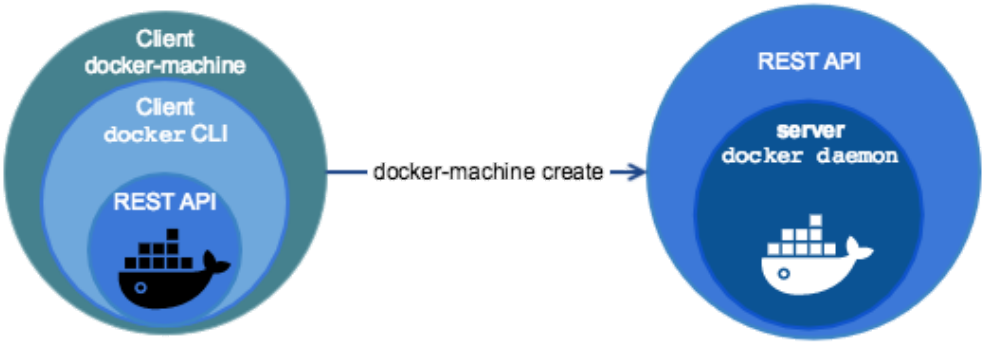
docker-machine

https://docs.docker.com/machine/

Docker Machine on Mac

Docker Machine on Windows



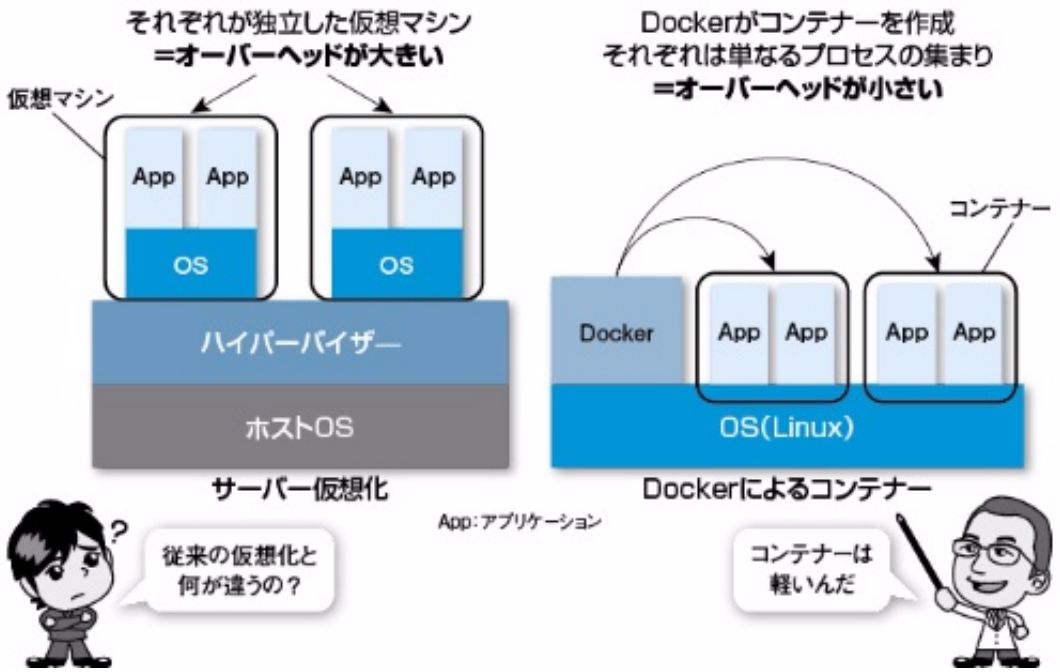


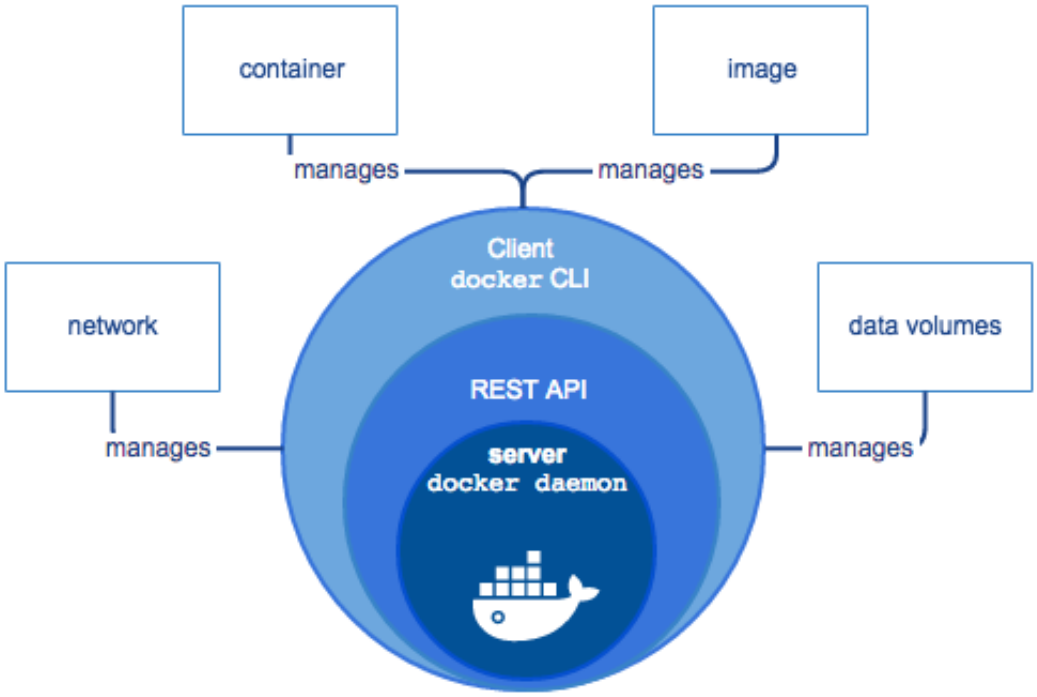

```
1.  docker-machine create --driver virtualbox default
2.  docker-machine env default
3.  docker-machine ls
4.  docker-machine start
5.  eval "$(docker-machine env default)"
```

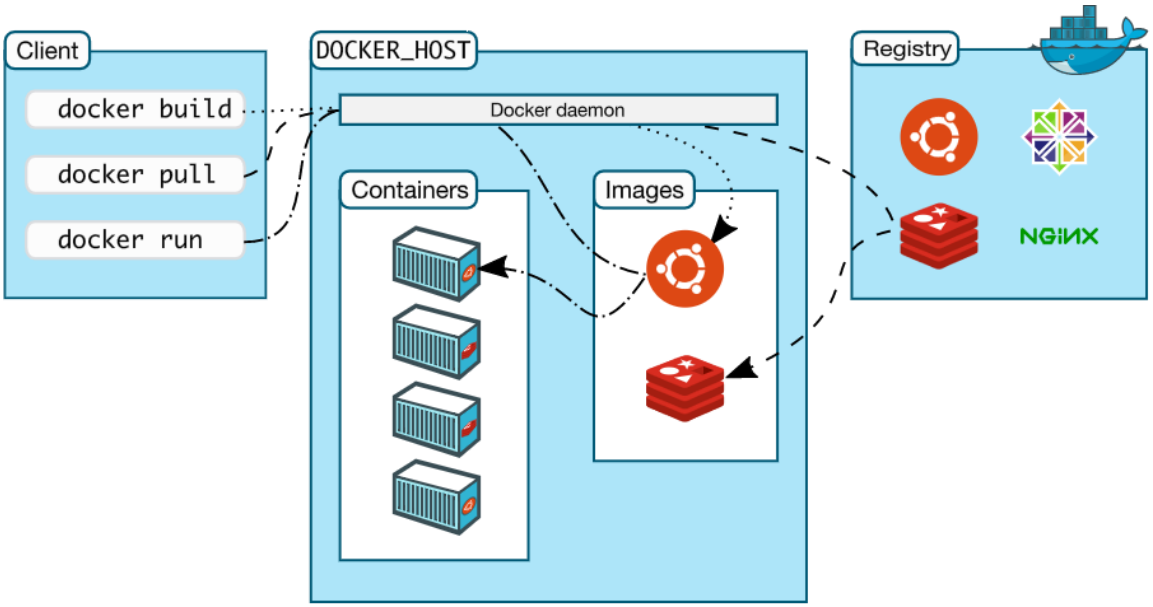
```
mac-mini:~ xenron$ docker-machine help
Usage: docker-machine [OPTIONS] COMMAND [arg...]

Create and manage machines running Docker.

Version: 0.8.1, build 41b3b25

Author:
  Docker Machine Contributors - <https://github.com/docker/machine>

Options:
  --debug, -D                                        Enable debug mode
  --storage-path, -s "/Users/xenron/.docker/machine"    Configures storage path [$MACHINE_STORAGE_PATH]
  --tls-ca-cert                                      CA to verify remotes against [$MACHINE_TLS_CA_CERT]
  --tls-ca-key                                       Private key to generate certificates [$MACHINE_TLS_CA_KEY]
  --tls-client-cert                                  Client cert to use for TLS [$MACHINE_TLS_CLIENT_CERT]
  --tls-client-key                                   Private key used in client TLS auth [$MACHINE_TLS_CLIENT_KEY]
  --github-api-token                                 Token to use for requests to the Github API [$MACHINE_GITHUB_API_TOKEN]
  --native-ssh                                       Use the native (Go-based) SSH implementation. [$MACHINE_NATIVE_SSH]
  --bugsnag-api-token                                BugSnag API token for crash reporting [$MACHINE_BUGSNAG_API_TOKEN]
  --help, -h                                         show help
  --version, -v                                      print the version

Commands:
  active               Print which machine is active
  config               Print the connection config for machine
  create               Create a machine
  env                  Display the commands to set up the environment for the Docker client
  inspect              Inspect information about a machine
  ip                   Get the IP address of a machine
  kill                 Kill a machine
  ls                   List machines
  provision            Re-provision existing machines
  regenerate-certs     Regenerate TLS Certificates for a machine
  restart              Restart a machine
  rm                   Remove a machine
  ssh                  Log into or run a command on a machine with SSH.
  scp                  Copy files between machines
  start                Start a machine
  status               Get the status of a machine
  stop                 Stop a machine
  upgrade              Upgrade a machine to the latest version of Docker
  url                  Get the URL of a machine
  version              Show the Docker Machine version or a machine docker version
  help                 Shows a list of commands or help for one command

Run 'docker-machine COMMAND --help' for more information on a command.
mac-mini:~ xenron$
```

docker

https://docs.docker.com/engine/understanding-docker/




container
image
manages
manages
Client
docker CLI
network
data volumes
REST API
server
docker daemon
manages
manages


Client
docker build
docker pull
docker run
DOCKER_HOST
Docker daemon
Containers
Images
Registry
NGINX

```
mac-mini:~ xenron$ docker-machine help
Usage: docker-machine [OPTIONS] COMMAND [arg...]

Create and manage machines running Docker.

Version: 0.8.1, build 41b3b25

Author:
  Docker Machine Contributors - <https://github.com/docker/machine>

Options:
  --debug, -D                                        Enable debug mode
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  --tls-ca-key                                       Private key to generate certificates [$MACHINE_TLS_CA_KEY]
  --tls-client-cert                                  Client cert to use for TLS [$MACHINE_TLS_CLIENT_CERT]
  --tls-client-key                                   Private key used in client TLS auth [$MACHINE_TLS_CLIENT_KEY]
  --github-api-token                                 Token to use for requests to the Github API [$MACHINE_GITHUB_API_TOKEN]
  --native-ssh                                       Use the native (Go-based) SSH implementation. [$MACHINE_NATIVE_SSH]
  --bugsnag-api-token                                BugSnag API token for crash reporting [$MACHINE_BUGSNAG_API_TOKEN]
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  --version, -v                                      print the version

Commands:
  active               Print which machine is active
  config               Print the connection config for machine
  create               Create a machine
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  inspect              Inspect information about a machine
  ip                   Get the IP address of a machine
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  provision            Re-provision existing machines
  regenerate-certs     Regenerate TLS Certificates for a machine
  restart              Restart a machine
  rm                   Remove a machine
  ssh                  Log into or run a command on a machine with SSH.
  scp                  Copy files between machines
  start                Start a machine
  status               Get the status of a machine
  stop                 Stop a machine
  upgrade              Upgrade a machine to the latest version of Docker
  url                  Get the URL of a machine
  version              Show the Docker Machine version or a machine docker version
  help                 Shows a list of commands or help for one command

Run 'docker-machine COMMAND --help' for more information on a command.
mac-mini:~ xenron$
```
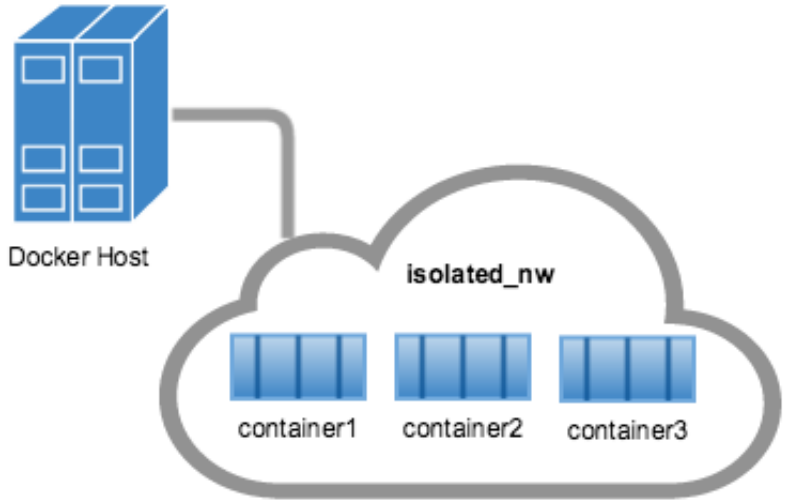
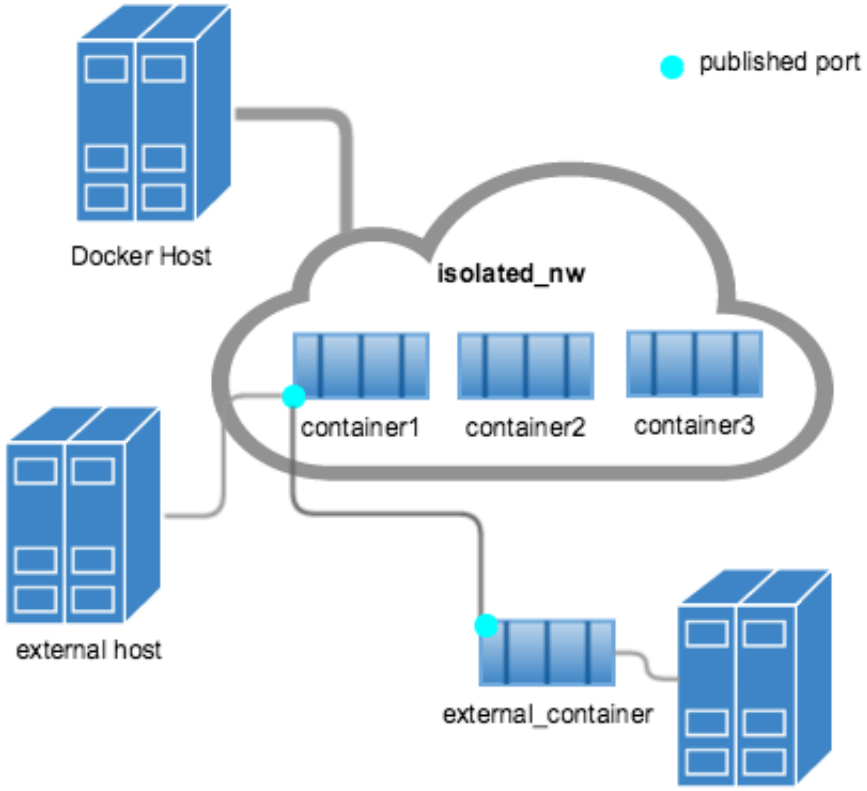

```
Commands:
    attach    Attach to a running container
    build     Build an image from a Dockerfile
    commit    Create a new image from a container's changes
    cp        Copy files/folders between a container and the local filesystem
    create    Create a new container
    diff      Inspect changes on a container's filesystem
    events    Get real time events from the server
    exec      Run a command in a running container
    export    Export a container's filesystem as a tar archive
    history   Show the history of an image
    images    List images
    import    Import the contents from a tarball to create a filesystem image
    info      Display system-wide information
    inspect   Return low-level information on a container, image or task
    kill      Kill one or more running containers
    load      Load an image from a tar archive or STDIN
    login     Log in to a Docker registry.
    logout    Log out from a Docker registry.
    logs      Fetch the logs of a container
    network   Manage Docker networks
    node      Manage Docker Swarm nodes
    pause     Pause all processes within one or more containers
    port      List port mappings or a specific mapping for the container
    ps        List containers
    pull      Pull an image or a repository from a registry
    push      Push an image or a repository to a registry
    rename    Rename a container
    restart   Restart a container
    rm        Remove one or more containers
    rmi       Remove one or more images
    run       Run a command in a new container
    save      Save one or more images to a tar archive (streamed to STDOUT by default)
    search    Search the Docker Hub for images
    service   Manage Docker services
    start     Start one or more stopped containers
    stats     Display a live stream of container(s) resource usage statistics
    stop      Stop one or more running containers
    swarm     Manage Docker Swarm
    tag       Tag an image into a repository
    top       Display the running processes of a container
    unpause   Unpause all processes within one or more containers
    update    Update configuration of one or more containers
    version   Show the Docker version information
    volume    Manage Docker volumes
    wait      Block until a container stops, then print its exit code

Run 'docker COMMAND --help' for more information on a command.
mac-mini:~ xenron$
```

docker network

https://docs.docker.com/engine/userguide/networking/


Docker Host
isolated_nw
container1
container2
container3


published port
Docker Host
isolated_nw
container1
container2
container3
external host
external_container