

iManager Deployment Guide--Linux

a. Fast Deployment

1. System Requirements

- Number of processors: 4 cores+
- Memory: 4GB+
- Hard Disk: 80GB+

2. Prepare Install Package

Get the following packages from SuperMap:

- supermap-imanager-*-*-docker.tar.gz (* indicates version, any version is ok)
- supermap-docker-image-iserver-*.tar.gz (* indicates version, any version is ok)
- supermap-docker-image-iportal-*.tar.gz (* indicates version, any version is ok)

The following 2 kinds of packages can be selected according to the OS.

- supermap-docker-for-ubuntu-16.04.tar.gz (used for Ubuntu 16.04)
- supermap-docker-for-rhel-or-centos-7.1.tar.gz (used for Redhat 7.1 or Centos 7.1)

3. Install Docker

3.1 Install Docker on Ubuntu 16.04

Place the supermap-docker-for-ubuntu-16.04.tar.gz package in any directory on the machine.

Extract:

```
tar -zxf supermap-docker-for-ubuntu-16.04.tar.gz
```

Install:

```
cd supermap-docker-for-ubuntu-16.04  
sudo chmod +x install.sh && sudo ./install.sh
```

Verify:check docker version,if you see the output like Docker version 17.06.0-ce, build 02c1d87,Docker install successfully

```
docker -v
```

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3.2 Install Docker on RedHat 7.1 or CentOS 7.1

Place the supermap-docker-for-rhel-or-centos-7.1.tar.gz package in any directory on the machine.

Extract:

```
tar -zxf supermap-docker-for-rhel-or-centos-7.1.tar.gz
sudo chmod +x install.sh && sudo ./install.sh
```

Enter the extracted root directory:

```
cd supermap-docker-for-rhel-or-centos-7.1
```

If the operating system is CentOS, perform the following steps, otherwise skip this step:

```
Check the kernel:
uname -r
If the kernel version is under 3.18, view the CentOS version:
cat /etc/redhat-release
If the CentOS version is below 7.3.1611, perform the following command:
sudo chmod +x setStorageDriver.sh && sudo ./setStorageDriver.sh
```

Install:

```
sudo chmod +x install.sh && sudo ./install.sh
```

Verify:check docker version,if you see the output like Docker version 17.06.0-ce, build 02c1d87,Docker install successfully

```
docker -v
```

4. Import Required Docker Mirror

4.1 Import iServer mirror

Place the supermap-docker-image-iserver-*.tar.gz packge in any directory on the machine, and then go to the supermap-docker-image-iserver folder to execute the unzip command (modify the package name to the real package name):

```
sudo tar -zxf supermap-docker-image-iserver-*.tar.gz
```

Enter the extracted root directory:

```
cd supermap-docker-image-iserver
```

Execute the command under the supermap-docker-image-iserver folder to import:

```
sudo chmod +x ./images/pkg-out.sh && sudo ./images/pkg-out.sh
```

4.2 Import iPortal mirror

Place the supermap-docker-image-iportal-*.tar.gz package in any directory on the machine

Execute the unzip command under the supermap-docker-image-iportal folder (modify the package name to the real package name):

```
sudo tar -zxf supermap-docker-image-iportal-*.tar.gz
```

Enter the extracted root directory:

```
cd supermap-docker-image-iportal
```

Execute the command under the supermap-docker-image-iportal folder to import:

```
sudo chmod +x ./images/pkg-out.sh && sudo ./images/pkg-out.sh
```

5. Install iManager

5.1. Install iManager

Place the supermap-imanager-*-*-*-linux64-docker.tar.gz package in any directory on the machine, and unzip it with the following command (modify the package name to the actual package name)

```
tar -zxf supermap-imanager-*-*-*-linux64-docker.tar.gz
```

Perform the following command in the current directory to install iManager

```
cd supermap-imanager-docker
sudo chmod +x install.sh && sudo ./install.sh
```

5.2 Tuning Parameters

Under the current directory, execute the following command to edit the .env file for iManager configuration

```
sudo vi .env
```

Modify the following parameter values:

IP that can be externally accessible for the machine where iManager is (required) . It is used to configure iManager, Elasticsearch, Zabbix, Kibana

```
IMANAGER_HOST_IP=
```

Docker used by the compose application. Here is the IP of the local machine (note: 127.0.0.1/localhost is not allowed)

#IAAS platform type. The Docker environment of the local machine is used by default. If you want to use other IaaS platforms, modify them (if IaaS not employed, leave it blank) and take the value range: [VSPHERE,DOCKER,OPENSTACK,FUSIONCOMPUTE,FUSIONCOMPUTE_R5]

```
IAAS_TYPE=DOCKER
```

#Docker which is used to create GIS environment ,The value will be used only when the IaaS platform type is DOCKER,the default value is the Docker where iManager is installed.

```
IAAS_DOCKER_IP=
```

```
COMPOSE_DOCKER_IP=
```

License Server address (leave blank for trial license)

```
LICENSE_SERVER=
```

#Set KIBANA Port

```
KIBANA_PORT=5601
```

#KeepAlived image,you can modify it to your real image name

```
KEEPALIVED_IMAGE=imanager/docker-keepalived:latest
```

5.3 Keepalived mirror configuration (optional)

You can use the default Keepalived mirrors, or use the ones configured by yourself. The name of the default keepalived mirror in the ova package of the iManager product is: imanager/docker-keepalived. For example, you have modified the default keepalived mirror name to: resgistry.supermap.com/imaganager/docker-keepalived:latest (for example).

For the proper work of iManager HA policy feature, you need to configure iManager to make your changes take effect.

- 1. First you need to add the following line of fields and mirror names in the .env configuration file in the /opt/imaganager directory, where "KEEPALIVED_IMAGE" is the field and the mirror name can be set according to requirements.

```
KEEPALIVED_IMAGE=resgistry.supermap.com/imaganager/docker-keepalived:latest
```

- 2. Reboot iManager, the modified Keepalived mirror configuration will take effect immediately.

5.4 Restart/Stop iManager

Restart iManager

```
sudo ./startup.sh
```

Stop iManager:

```
sudo ./shutdown.sh
```

5.5 Access imanager services

http://{IP}:8390/imaganager

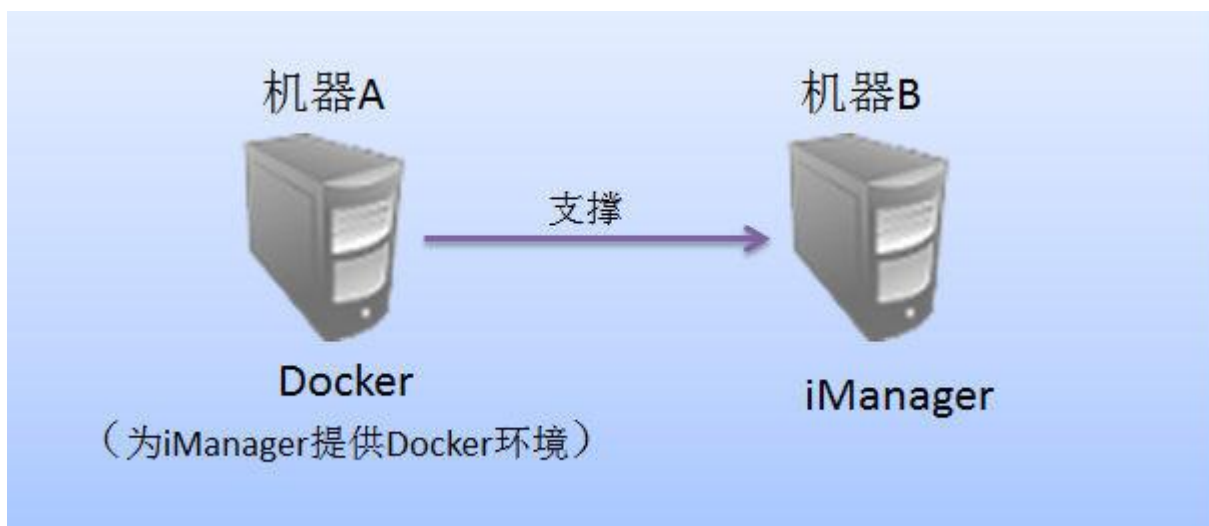
or

http://{IP}:8080/imaganager

Where {IP} is IP of the local machine

b. Production Environment Deployment

1. Environment description



- We need to prepare two machines: machine A and machine B.
- Deploy the Docker environment on Machine A, which is used to support iManager Compose applications as well as big data functions.
- Deploy iManager on Machine B

2. Deploy machine A

2.1. System Requirements

- Number of processors: 8 cores+
- Memory: 16 GB+
- Hard Disk: 500 GB+

2.2. Prepare Install Package

Get the following packages from SuperMap:

- supermap-docker-image-iportal-*.tar.gz (* indicates version, any version is ok). The following 2 kinds of packages can be selected according to the OS.
- supermap-docker-for-ubuntu-16.04.tar.gz (used for Ubuntu 16.04 system)
- supermap-docker-for-rhel-or-centos-7.1.tar.gz(used for Redhat 7 or Centos 7 system)

2.3. Install Docker

2.3 Install Docker on Ubuntu 16.04

Place the supermap-docker-for-ubuntu-16.04.tar.gz package in any directory on the machine.

Extract:

```
tar -zxf supermap-docker-for-ubuntu-16.04.tar.gz
```

Install:

```
cd supermap-docker-for-ubuntu-16.04
```

```
sudo chmod +x install.sh && sudo ./install.sh
```

2.3 Install Docker on RedHat 7.1 or CentOS 7.1

Place the supermap-docker-for-rhel-or-centos-7.1.tar.gz package in any directory on the machine.

Extract:

```
tar -zxf supermap-docker-for-rhel-or-centos-7.1.tar.gz
```

Enter the unzipped root directory:

```
cd supermap-docker-for-rhel-or-centos-7.1
```

If the operating system is CentOS, perform the following steps, or skip this step:

Check the kernel:

```
uname -r
```

If the kernel version is under 3.18, view the CentOS version:

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

If the CentOS version is below 7.3.1611, perform the following command:

```
sudo chmod +x setStorageDriver.sh && sudo ./setStorageDriver.sh
```

Install:

```
sudo chmod +x install.sh && sudo ./install.sh
```

Verify:check docker version,if you see the output like Docker version 17.06.0-ce, build 02c1d87,Docker install successfully

```
docker -v
```

2.4. Import Required Docker Mirror

Create a new folder at any location on the machine:

```
sudo mkdir supermap-docker-image-all
```

Place the supermap-docker-image-all-*.tar.gz package to the created supermap-docker-image-all folder, and then go to the supermap-docker-image-all folder to execute the unzip command (modify the package name to the real package name):

```
cd supermap-docker-image-all  
sudo tar -zxf supermap-docker-image-all-*.tar.gz
```

Execute the command under the supermap-docker-image-all folder to import:

3. Deploy machine B

3.1. System Requirements

- Number of processors: 4 cores+
- Memory: 4GB+
- Hard Disk: 80GB+

3.2. Prepare Install Package

Get the following packages from SuperMap:

- supermap-imanager-*-*-docker.tar.gz (* indicates version, any version is ok). The following 2 kinds of packages can be selected according to the OS.
- supermap-docker-for-ubuntu-16.04.tar.gz (used for Ubuntu 16.04 system)
- supermap-docker-for-rhel-or-centos-7.1.tar.gz(used for Redhat 7 or Centos 7 system)

3.3. Install Docker

3.3 Install Docker on Ubuntu 16.04

Place the supermap_docker_for_ubuntu_16. \$number. Tar. gz package in any directory on the machine.

Unzip:

```
tar -zxf supermap-docker-for-ubuntu-16.04.tar.gz
```

Install:

```
cd supermap-docker-for-ubuntu-16.04  
sudo chmod +x install.sh && sudo ./install.sh
```

3.3 Install Docker on RedHat or CentOS 7

Place the supermap-docker-for-rhel-or-centos-7.1.tar.gz package in any directory on the machine.

Unzip:

```
tar -zxf supermap-docker-for-rhel-or-centos-7.1.tar.gz
```

Enter the extracted root directory:

```
cd supermap-docker-for-rhel-or-centos-7.1
```

If the operating system is CentOS, perform the following steps, or skip this step:

```
Check the kernel:  
uname -r  
If the kernel version is under 3.18, view the CentOS version:  
cat /etc/redhat - release  
If the CentOS version is below 7.3.1611, perform the following command:  
sudo chmod +x setStorageDriver.sh && sudo ./setStorageDriver.sh
```

Install:

```
sudo chmod +x install.sh && sudo ./install.sh
```

Verify:check docker version,if you see the output like Docker version 17.06.0-ce, build 02c1d87,Docker install successfully

```
docker -v
```

3.4. Install iManager

3.4.1 Install iManager

Place the supermap-imanager-*-*-linux64-docker.tar.gz package in any directory on the machine.

Unzip (modify the package name to the real package name):

```
tar -zxf supermap-imanager-*-*-*-linux64-docker.tar.gz
```

Perform the following command in the current directory to install iManager

```
cd supermap-imanager-docker
sudo chmod +x install.sh && sudo ./install.sh
```

3.4.2 Tuning Parameters

Under the current directory, execute the following command to edit the .env file for iManager configuration

```
sudo vi .env
```

Modify the following parameter values:

IP that can be externally accessible for the machine where iManager is(required). It is used to configure iManager, ElasticSearch, Zabbix, Kibana

```
IMANAGER_HOST_IP=
```

Docker used by the compose application. Here is the IP of the machine A (note: 127.0.0.1/localhost is not allowed)

```
COMPOSE_DOCKER_IP=
```

License Server address (leave blank for trial license)

```
LICENSE_SERVER=
```

#Set KIBANA Port

```
KIBANA_PORT=5601
```

#KeepAlived image,you can modify it to your real image name

```
KEEPALIVED_IMAGE=imanager/docker-keepalived:latest
```

#IAAS platform type. Here we input Docker, indicating using the Docker environment of machine A. If you want to use other IaaS platforms, modify them (if IaaS not employed, leave it blank) and take the value range:

[VSPHERE,DOCKER,OPENSTACK,FUSIONCOMPUTE,FUSIONCOMPUTE_R5]

```
IAAS_TYPE=DOCKER
```

3.4.3 Restart/Stop iManager

Restart iManager

```
sudo ./startup.sh
```

Stop iManager:

```
sudo ./shutdown.sh
```

3.4.4 Access iManager services

http://{IP}:8390/imanager

or

http://{IP}:8080/manager

Where {IP} is IP of machine B

c. Appendix

1. RancherOS Installation

Note: Because rancheros does not support the tar -z command, the above-mentioned extract *.tar.gz step in the rancheros environment, you should replace with the following step (replace * with the actual name).

```
gzip -d *.tar.gz  
tar -xf *.tar
```