

# 从Docker到Kubernetes 第2周

DATAGURU专业数据分析社区

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<http://edu.dataguru.cn>

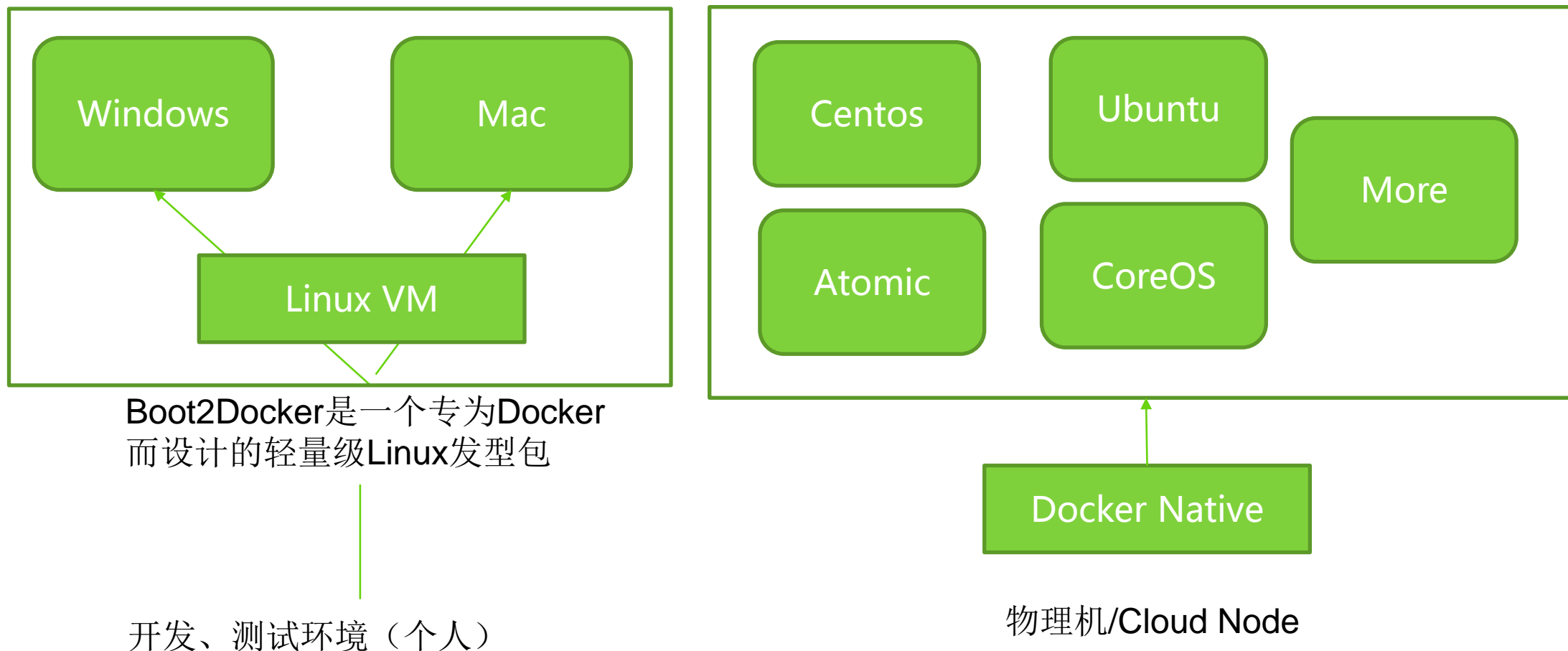
# Docker的部署安装

# Docker配置文件与日志

# Docker基础命令讲解

# Docker的部署安装

Docker采用Linux（内核）技术，所以只能运行在Linux上，官方说Linux kernel至少3.8以上



# Docker的部署安装

本课程 Centos 7 ，采用Redhat官方的yum源和Docker RPM包安装  
从百度云盘下载centos 7镜像 Docker课程 所用资料 <http://pan.baidu.com/s/1jG4FAqq>  
SSH进入虚机后，执行标准化安装过程：

yum install docker

```
Dependencies Resolved

=====
Package                                Arch                                Version
=====
Installing:
docker                                x86_64                              1.7.1-108.el7.centos
Installing for dependencies:
audit-libs-python                    x86_64                              2.4.1-5.el7
checkpolicy                          x86_64                              2.1.12-6.el7
docker-selinux                       x86_64                              1.7.1-108.el7.centos
libcgroup                           x86_64                              0.41-8.el7
libsemanage-python                  x86_64                              2.1.10-16.el7
policycoreutils-python              x86_64                              2.2.5-15.el7
python-IPy                          noarch                              0.75-6.el7
setools-libs                        x86_64                              3.3.7-46.el7

Transaction Summary
=====
Install 1 Package (+8 Dependent packages)

Total download size: 8.4 M
Installed size: 34 M
Is this ok [y/d/N]: 
```

## Docker 1.8的部署安装

```
cat >/etc/yum.repos.d/docker.repo <<-EOF
[dockerrepo]
name=Docker Repository
baseurl=https://yum.dockerproject.org/repo/main/centos/7
enabled=1
gpgcheck=1
gpgkey=https://yum.dockerproject.org/gpg
EOF
```

```
yum install docker-engine
```

# Docker的部署安装

设置开机启动Docker Daemon进程

systemctl start docker.service

systemctl enable docker.service

systemctl grep docker查看docker进程的状态

systemctl disable firewalld

yum -y install iptables-services

systemctl enable iptables

systemctl start iptables

换回默认的iptables服务

```
[root@localhost ~]# docker info
Containers: 0
Images: 0
Storage Driver: devicemapper
  Pool Name: docker-8:3-135258285-pool
  Pool Blocksiz: 65.54 kB
  Backing Filesystem: xfs
  Data file: /dev/loop0
  Metadata file: /dev/loop1
  Data Space Used: 307.2 MB
  Data Space Total: 107.4 GB
  Data Space Available: 39.22 GB
  Metadata Space Used: 729.1 kB
  Metadata Space Total: 2.147 GB
  Metadata Space Available: 2.147 GB
  Udev Sync Supported: true
  Deferred Removal Enabled: false
  Data loop file: /var/lib/docker/devicemapper/devicemapper/data
  Metadata loop file: /var/lib/docker/devicemapper/devicemapper/metadata
  Library Version: 1.02.93-RHEL7 (2015-01-28)
Execution Driver: native-0.2
Logging Driver: json-file
Kernel Version: 3.10.0-229.el7.x86_64
Operating System: CentOS Linux 7 (Core)
CPUs: 4
Total Memory: 979.7 MiB
Name: localhost.localdomain
ID: IRCD:HEAA:KSEF:QSN6:MV6J:CQOJ:EQYM:UMWZ:Q2R3:MYKH:CAKE:H6UZ
```

# Docker的部署安装

```
[root@localhost ~]# docker version
Client version: 1.7.1
Client API version: 1.19
Package Version (client): docker-1.7.1-108.el7.centos.x86_64
Go version (client): go1.4.2
Git commit (client): 3043001/1.7.1
OS/Arch (client): linux/amd64
Server version: 1.7.1
Server API version: 1.19
Package Version (server): docker-1.7.1-108.el7.centos.x86_64
Go version (server): go1.4.2
Git commit (server): 3043001/1.7.1
OS/Arch (server): linux/amd64
```

客户端版本

查看Docker版本号

服务端版本

```
[root@localhost ~]# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 00:0c:29:e8:02:c7 brd ff:ff:ff:ff:ff:ff
    inet 192.168.18.128/24 brd 192.168.18.255 scope global dynamic eth0
        valid_lft 1645sec preferred_lft 1645sec
    inet6 fe80::20c:29ff:fee8:2c7/64 scope link
        valid_lft forever preferred_lft forever
3: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN
    link/ether 56:84:7a:fe:97:99 brd ff:ff:ff:ff:ff:ff
    inet 172.17.42.1/16 scope global docker0
        valid_lft forever preferred_lft forever
```

Docker0虚拟网桥

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Docker配置文件: /etc/sysconfig/docker

重要参数解释:

OPTIONS 用来控制Docker Daemon进程参数

-H 表示Docker Daemon绑定的地址, -H=unix:///var/run/docker.sock -H=tcp://0.0.0.0:2375

--registry-mirror表示Docker Registry的镜像地址--registry-mirror=http://4bc5abeb.m.daocloud.io

--insecure-registry表示(本地)私有Docker Registry的地址, --insecure-registry \${privateRegistryHost}:5000

--selinux-enabled是否开启SELinux, 默认开启 --selinux-enabled=true

--bip 表示网桥docker0使用指定CIDR网络地址, --bip=172.17.42.1

-b 表示采用已经创建好的网桥, -b=xxx

OPTIONS=-H=unix:///var/run/docker.sock -H=tcp://0.0.0.0:2375 --registry-mirror=http://4bc5abeb.m.daocloud.io --selinux-enabled=true

下面是代理的设置

http\_proxy=xxxxxx:8080

https\_proxy=xxxxxxx:8080

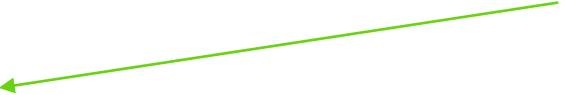
## Docker配置文件(Cent OS 7)

```
vi /usr/lib/systemd/system/docker.service
```

```
ExecStart=/usr/bin/docker daemon -H fd:// -H=unix:///var/run/docker.sock -H=tcp://0.0.0.0:2375 --registry-mirror=http://4bc5abeb.m.daocloud.io --selinux-enabled=true
```

```
[Service]
Environment="HTTP_PROXY=http://xxxxcom:8080"
Environment="HTTPS_PROXY=http://xxxcom:8080"
Type=notify
ExecStart=/usr/bin/docker daemo
```

代理设置



# Docker配置文件与日志

Docker的日志文件写入到 /var/log/message里

```
[root@localhost ~]# tail -f /var/log/messages |grep docker
Aug 23 06:54:22 localhost docker: time="2015-08-23T06:54:22.041147767-07:00" level=info msg="[graphdriver] using prior storage driver \"de
Aug 23 06:54:22 localhost docker: time="2015-08-23T06:54:22.042432207-07:00" level=info msg="Option DefaultDriver: bridge"
Aug 23 06:54:22 localhost docker: time="2015-08-23T06:54:22.042463173-07:00" level=info msg="Option DefaultNetwork: bridge"
Aug 23 06:54:22 localhost docker: time="2015-08-23T06:54:22.063428529-07:00" level=warning msg="Running modprobe bridge nf_nat br_netfilter
\ninsmod /lib/modules/3.10.0-229.11.1.el7.x86_64/kernel/net/llc/llc.ko \ninsmod /lib/modules/3.10.0-229.11.1.el7.x86_64/kernel/net/802/stp
ridge.ko \ninsmod /lib/modules/3.10.0-229.11.1.el7.x86_64/kernel/net/netfilter/nf_conntrack.ko \ninsmod /lib/modules/3.10.0-229.11.1.el7.x
Aug 23 06:54:22 localhost docker: time="2015-08-23T06:54:22.065412089-07:00" level=info msg="Firewalld running: false"
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): carrier is OFF
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): new Bridge device (driver: 'bridge' ifindex: 3)
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): exported as /org/freedesktop/NetworkManager/Devices/2
Aug 23 06:54:22 localhost avahi-daemon[765]: Joining mDNS multicast group on interface docker0.IPv4 with address 172.17.42.1.
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): device state change: unmanaged -> unavailable (reason 'managed') [10 20
Aug 23 06:54:22 localhost kernel: IPv6: ADDRCONF(NETDEV_UP): docker0: link is not ready
Aug 23 06:54:22 localhost avahi-daemon[765]: New relevant interface docker0.IPv4 for mDNS.
Aug 23 06:54:22 localhost avahi-daemon[765]: Registering new address record for 172.17.42.1 on docker0.IPv4.
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): preparing device
Aug 23 06:54:22 localhost kernel: IPv6: ADDRCONF(NETDEV_UP): docker0: link is not ready
Aug 23 06:54:22 localhost NetworkManager[763]: <info> read connection 'docker0'
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): device state change: unavailable -> disconnected (reason 'connection-ass
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): Activation: starting connection 'docker0'
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): Activation: Stage 1 of 5 (Device Prepare) scheduled...
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): Activation: Stage 1 of 5 (Device Prepare) started...
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): device state change: disconnected -> prepare (reason 'none') [30 40 0]
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): Activation: Stage 2 of 5 (Device Configure) scheduled...
Aug 23 06:54:22 localhost NetworkManager[763]: <info> (docker0): Activation: Stage 1 of 5 (Device Prepare) complete.
```

# Docker配置文件与日志

Docker的日志文件写入到 /var/log/message里

```
docker: time="2015-08-23T08:24:22.079676280-07:00" level=info msg="Listening for HTTP on fd ()"  
docker: time="2015-08-23T08:27:47.379224646-07:00" level=info msg="GET /v1.20/images/search?term=java"  
docker: time="2015-08-23T08:28:13.855848944-07:00" level=error msg="Handler for GET /images/search returned error: Get http:  
docker: time="2015-08-23T08:28:13.855998183-07:00" level=error msg="HTTP Error" err="Get https://index.docker.io/v1/search?"
```

# Docker基础命令讲解

docker search

```
[root@localhost ~]# docker search java
Error response from daemon: Get https://index.docker.io/v1/search?q=java: dial tcp 52.6.188.70:443: connection refused
```

```
[root@localhost ~]# docker search java
```

NAME	DESCRIPTION	STARS	OFFICIAL	AUTOMATED
node	Node.js is a JavaScript-based platform for...	954	[OK]	
java	Java is a concurrent, class-based, and obj...	296	[OK]	
develar/java		13		[OK]
maxexcloo/java	Docker framework container with the Oracle...	6		[OK]
isuper/java-oracle	This repository contains all java releases...	6		[OK]
lscience/java	Java Docker images based on Alpine Linux	5		[OK]
nimmis/java-centos	This is docker images of CentOS 7 with dif...	4		[OK]
andreluiznsilva/java	Docker images for java applications	4		[OK]
jolokia/java-jolokia	Java base image with Jolokia	4		[OK]
anapsix/alpine-java	Oracle Java8 with GLIBC 2.21 over AlpineLinux	3		[OK]
andreptb/oracle-java	Debian Jessie based image with Oracle JDK ...	3		[OK]
nimmis/java	This is docker images of Ubuntu 14.04 LTS ...	2		[OK]
denvazh/java	Lightweight Java based on Alpine Linux Doc...	2		[OK]
webratio/java	Java (https://www.java.com/) image	2		[OK]
pallet/java		1		[OK]
baselibrary/java	ThoughtWorks Java Docker Image	1		[OK]
cloudesire/java	Based on Ubuntu Trusty with Oracle Java6 /...	1		[OK]
isuper/java-openjdk	This repository contains all OpenJDK java ...	1		[OK]
lwieske/java-8	Oracle Java 8 Container	1		[OK]
twdevops/java	ThoughtWorks DevOps CN Dockerized Java.	1		[OK]
vicamo/java		0		[OK]
nfnty/arch-java	Arch Linux: Java	0		[OK]
infotechsoft/java	Java on CentOS	0		[OK]
cpelka/java	This repository holds baseline java docker...	0		[OK]
j728c/java	CentOS 7 + Java 1.7	0		[OK]

# Docker基础命令讲解

docker search

https://www.docker.com



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- openjdk-6b36-jdk , openjdk-6b36 , openjdk-6-jdk , openjdk-6 , 6b36-jdk , 6b36 , 6-jdk , 6 ( [openjdk-6-jdk/Dockerfile](#) )
- openjdk-6b36-jre , openjdk-6-jre , 6b36-jre , 6-jre ( [openjdk-6-jre/Dockerfile](#) )
- openjdk-7u79-jdk , openjdk-7u79 , openjdk-7-jdk , openjdk-7 , 7u79-jdk , 7u79 , 7-jdk , 7 ( [openjdk-7-jdk/Dockerfile](#) )
- openjdk-7u79-jre , openjdk-7-jre , 7u79-jre , 7-jre ( [openjdk-7-jre/Dockerfile](#) )
- openjdk-8u66-jdk , openjdk-8u66 , openjdk-8-jdk , openjdk-8 , 8u66-jdk , 8u66 , 8-jdk , 8 , jdk , latest ( [openjdk-8-jdk/Dockerfile](#) )
- openjdk-8u66-jre , openjdk-8-jre , 8u66-jre , 8-jre , jre ( [openjdk-8-jre/Dockerfile](#) )

For more information about this image and its history, please see the [relevant manifest file](#) (library/java) in the [docker-library/official-images](#) [GitHub repo](#).



# Docker基础命令讲解

## docker pull

```
[root@localhost ~]# docker pull java
Using default tag: latest
latest: Pulling from library/java
2c49f83e0b13: Downloading [=====>] 32.03 MB/51.37 MB
4a5e6db8c069: Download complete
f972ade4c9d5: Downloading [=>] 558.8 kB/18.54 MB
a0b6d62d8b49: Downloading [=====>] 12.4 MB/42.34 MB
67a1a84dac8c: Download complete
f95d7e1c2a84: Download complete
5c4e78bfec72: Download complete
d0a255447c77: Download complete
8558da74f8f3: Download complete
1ab50ea0048f: Download complete
b02cd8bc75045: Downloading [=====>] 31.79 MB/199.7 MB
2f5a61e35ea4: Download complete
2f5a61e35ea4: Pulling fs layer
```

```
Using default tag: latest
latest: Pulling from library/java
2c49f83e0b13: Pull complete
2c49f83e0b13: Already exists
4a5e6db8c069: Already exists
f972ade4c9d5: Pull complete
a0b6d62d8b49: Layer already being pulled by another client. Waiting.
67a1a84dac8c: Layer already being pulled by another client. Waiting.
f95d7e1c2a84: Layer already being pulled by another client. Waiting.
5c4e78bfec72: Layer already being pulled by another client. Waiting.
d0a255447c77: Layer already being pulled by another client. Waiting.
8558da74f8f3: Layer already being pulled by another client. Waiting.
1ab50ea0048f: Layer already being pulled by another client. Waiting.
b02cd8bc75045: Layer already being pulled by another client. Waiting.
2f5a61e35ea4: Layer already being pulled by another client. Waiting.
```

```
[root@localhost ~]# docker pull java
Using default tag: latest
latest: Pulling from library/java
a0b6d62d8b49: Pull complete
67a1a84dac8c: Pull complete
f95d7e1c2a84: Pull complete
5c4e78bfec72: Pull complete
d0a255447c77: Pull complete
8558da74f8f3: Pull complete
1ab50ea0048f: Pull complete
b02cd8bc75045: Downloading [=====]
2f5a61e35ea4: Download complete
2f5a61e35ea4: Pulling fs layer
2c49f83e0b13: Already exists
4a5e6db8c069: Already exists
f972ade4c9d5: Already exists
```

# Docker基础命令讲解

## docker images

```
[root@localhost ~]# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	VIRTUAL SIZE
java	latest	2f5a61e35ea4	2 days ago	817.5 MB

## docker run

```
[root@localhost ~]# docker run -it java java -version
openjdk version "1.8.0_66-internal"
OpenJDK Runtime Environment (build 1.8.0_66-internal-b01)
OpenJDK 64-Bit Server VM (build 25.66-b01, mixed mode)
```

```
[root@localhost ~]# docker run -it java ps
```

PID	TTY	TIME	CMD
1	?	00:00:00	ps

```
[root@localhost ~]# docker run -it java uname
Linux
```

docker run 里面的命令结束了，container就结束了

```
[root@localhost ~]# docker run java ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue sta
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
18: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdis
    link/ether 02:42:ac:11:00:08 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.8/16 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::42:acff:fe11:8/64 scope link tentative
        valid_lft forever preferred_lft forever
```

```
[root@localhost ~]# docker run java env
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
HOSTNAME=2103b4ab1492
LANG=C.UTF-8
JAVA_VERSION=8u66
JAVA_DEBIAN_VERSION=8u66-b01-1~bpo8+1
CA_CERTIFICATES_JAVA_VERSION=20140324
HOME=/root
```



# Docker基础命令讲解

**docker run [OPTIONS] IMAGE[:TAG] [COMMAND] [ARG...]**

决定容器的运行方式，前台执行还是后台执行

docker run后面追加-d=true或者-d，那么容器将会运行在后台模式。

docker exec来进入到该容器中，或者attach重新连接容器的会话

进行交互式操作（例如Shell脚本），那我们必须使用-i -t参数同容器进行数据交互

docker run时没有指定--name，那么daemon会自动生成一个随机字符串UUID

Docker时有自动化的需求，你可以将containerID输出到指定的文件中（PIDfile）：--cidfile=""

Docker的容器是没有特权的，例如不能在容器中再启动一个容器。这是因为默认情况下容器是不能访问任何其它设备的。但是通过"privileged"，容器就拥有了访问任何其它设备的权限。

# Docker基础命令讲解



docker create/start/stop/pause/unpause

容器生命周期相关指令

```
^C[root@localhost ~]# docker create -it --name=myjava java java version
b2eec00780a68b8eb5f1c8444ad3b18c5308b8b7f5640df3f6f93a600d1e7f36
```

```
[root@localhost ~]# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
b2eec00780a6	java	"java version"	10 seconds ago	Created		myjava
2103b4ab1492	java	"env"	10 minutes ago	Exited (0) 10 minutes ago		cocky_einstein
47d4d5005173	java	"ip addr"	27 minutes ago	Exited (0) 27 minutes ago		pensive_kilby
c19ad76bd4fb	java	"ip addr"	27 minutes ago	Exited (0) 27 minutes ago		high_colden
ad1ca2786d2b	java	"ip addr"	27 minutes ago	Exited (0) 27 minutes ago		kickass_colden
6df755be3eb1	java	"ip addr"	28 minutes ago	Exited (0) 28 minutes ago		compassionate_almeida
feb7e46970d5	java	"uname"	28 minutes ago	Exited (0) 28 minutes ago		thirsty_saha
e01039d89c58	java	"unmae"	29 minutes ago	Created		berserk_payne
e47e3f95e95e	java	"uname"	29 minutes ago	Exited (0) 29 minutes ago		jolly_poincare
d332837966d6	java	"uname"	31 minutes ago	Exited (0) 31 minutes ago		elegant_mcclintock
a25c7a915010	java	"ps"	31 minutes ago	Exited (0) 31 minutes ago		gloomy_mccarthy
cc3399d7eae2	java	"ps"	32 minutes ago	Exited (0) 31 minutes ago		stoic_lovelace
0429da1c0f22	java	"java -version"	32 minutes ago	Exited (0) 32 minutes ago		distracted_blackwell

```
[root@localhost ~]# docker start myjava
```

```
myjava
```

```
[root@localhost ~]# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
--------------	-------	---------	---------	--------	-------	-------

```
[root@localhost ~]# docker create --name mysqlsrv1 -e MYSQL_ROOT_PASSWORD=123456 -p 3306:3306 mysql
```

```
c2c5a71e90fe4a80ef92f3c9c8d697ece2acf1d67433566bc92da3b008db7024
```

```
[root@localhost ~]# docker start mysqlsrv1
```

```
mysqlsrv1
```

```
[root@localhost ~]# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
c2c5a71e90fe	mysql	"/entrypoint.sh mysql"	16 seconds ago	Up 5 seconds	0.0.0.0:3306->3306/tcp	mysqlsrv1

# Docker基础命令讲解



## Mysql镜像命令举例

```
[root@localhost ~]# netstat -tlnp
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 0.0.0.0:2375             0.0.0.0:*               LISTEN      999/docker
tcp        0      0 0.0.0.0:mysql            0.0.0.0:*               LISTEN      11781/docker-proxy
tcp        0      0 0.0.0.0:ssh                0.0.0.0:*               LISTEN      998/sshd
tcp        0      0 localhost:smtp          0.0.0.0:*               LISTEN      1652/master
```

>mysql -uroot -p123456 -h192.168.18.128

```
C:\Users\wuzhih>mysql -uroot -p123456 -h192.168.18.128
Warning: Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.6.26 MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input.

mysql>
```

```
[root@localhost ~]# docker exec mysqlsrv1 env
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
HOSTNAME=c2c5a71e90fe
MYSQL_ROOT_PASSWORD=123456
MYSQL_MAJOR=5.6
MYSQL_VERSION=5.6.26
HOME=/root
```

docker exec -it mysqlsrv1 /bin/bash

```
root@c2c5a71e90fe:/# cat /var/log/mysql/error.log
2015-08-12 19:09:14 201 [Note] InnoDB: Using atomics to ref count buffer pool pages
2015-08-12 19:09:14 201 [Note] InnoDB: The InnoDB memory heap is disabled
2015-08-12 19:09:14 201 [Note] InnoDB: Mutexes and rw_locks use GCC atomic builtins
2015-08-12 19:09:14 201 [Note] InnoDB: Memory barrier is not used
2015-08-12 19:09:14 201 [Note] InnoDB: Compressed tables use zlib 1.2.7
2015-08-12 19:09:14 201 [Note] InnoDB: Using Linux native AIO
2015-08-12 19:09:14 201 [Note] InnoDB: Using CPU crc32 instructions
2015-08-12 19:09:14 201 [Note] InnoDB: Initializing buffer pool, size = 128.0M
2015-08-12 19:09:14 201 [Note] InnoDB: Completed initialization of buffer pool
```

# Docker基础命令讲解



docker ps

```
[root@localhost ~]# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
c2c5a71e90fe	mysql	"/entrypoint.sh mysql"	32 minutes ago	Up 8 minutes	0.0.0.0:3306->3306/tcp	mysqlsrv1

```
[root@localhost ~]# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
c2c5a71e90fe	mysql	"/entrypoint.sh mysql"	32 minutes ago	Up 8 minutes	0.0.0.0:3306->3306/tcp	mysqlsrv1
b91b6aaefefe	java	"top"	43 minutes ago	Exited (1) 43 minutes ago		myjava2
a7e9b6560706	java	"top"	44 minutes ago	Exited (0) 43 minutes ago		hopeful_lalande
411a861b4d05	java	"top"	44 minutes ago	Exited (0) 44 minutes ago		dreamy_ardinghelli
b2eec00780a6	java	"java version"	45 minutes ago	Exited (1) 45 minutes ago		myjava
2103b4ab1492	java	"env"	56 minutes ago	Exited (0) 56 minutes ago		cocky_einstein
47d4d5005173	java	"ip addr"	About an hour ago	Exited (0) About an hour ago		pensive_kilby
c19ad76bd4fb	java	"ip addr"	About an hour ago	Exited (0) About an hour ago		high_colden
ad1ca2786d2b	java	"ip addr"	About an hour ago	Exited (0) About an hour ago		kickass_colden
6df755be3eb1	java	"ip addr"	About an hour ago	Exited (0) About an hour ago		compassionate_almeida
feb7e46970d5	java	"uname"	About an hour ago	Exited (0) About an hour ago		thirsty_saha
e01039d89c58	java	"unmae"	About an hour ago	Created		berserk_payne
e47e3f95e95e	java	"uname"	About an hour ago	Exited (0) About an hour ago		jolly_poincare
d332837966d6	java	"uname"	About an hour ago	Exited (0) About an hour ago		elegant_mcclintock
a25c7a915010	java	"ps"	About an hour ago	Exited (0) About an hour ago		gloomy_mccarthy
cc3399d7eae2	java	"ps"	About an hour ago	Exited (0) About an hour ago		stoic_lovelace
0429da1c0f22	java	"java -version"	About an hour ago	Exited (0) About an hour ago		distracted_blackwell

run -rm

# Thanks

**FAQ时间**