docker容器

原创 Mr大表哥

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简单的说,容器是独立运行的一个或一组应用,以及它们的运行态环境。对应的, 虚拟机可以理解为模拟运行的一整套操作系统(提供了运行态环境和其他系统环 境)和跑在上面的应用。

下面介绍如何来管理一个容器,包括_{创建、启动和停止}等。

启动容器有两种方式,一种是基于镜像新建一个容器并启动,另外一个是将在终止 状态(stopped)的容器重新启动。

1、新建并启动

所需要的命令主要为docker run

下面的命令则启动一个 bash 终端,允许用户进行交互。

```
[root@localhost media] # docker images -
REPOSITORY
                                                         CREATED
                                                                            SIZE
                                      IMAGE ID
                   TAG
                                                         6 months ago
docker.io/centos
                   latest
                                      50dae1ee8677
                                                                            196.7 MB
                   centos6
docker.io/centos
                                      cf2c3ece5e41
                                                                            194.6 MB
                                                         7 months ago
[root@localhost ~]# docker run - it docker.io/centos:centos6 /bin/bash 🥒
[ root@Oeecd2f8a665 /]#
-t 选项让 Docker 分配一个伪终端 (pseudo-tty) 并绑定到容器的标准输入上;
 -i则让容器的标准输入保持打开(即交互式);
```

可以使用--name给容器起个形象的名称。

/bin/bash就是在/bin下启用bash,即开启命令解释器。(就是在容器内要执行的命令)

容器内无法使用ip a来查看容器的IP, 但是可以用ifconfig。

在交互模式下,用户可以通过所创建的终端来输入命令,例如:

容器的核心为所执行的应用程序,所需要的资源都是应用程序运行所必需的。除此 之外,并没有其它的资源。可以在伪终端中利用ps或 top 来查看进程信息。

```
[root@Oeecd2f8a665 /]# pwd
[root@0eecd2f8a665 /]# ps -ef 🗹
                  PPID C STIME TTY
UID
            PID
                                               TIME CMD
root
              1
                      0
                         0 10:25 ?
                                           00:00:00 /bin/bash
             12
                                           00:00:00 ps -ef
                      1
                         0 10:34 ?
root
[root@Oeecd2f8a665 /]# ps 🛹
   PID TTY
                     TIME CMD
     1 ?
                00: 00: 00 bash
    13 ?
                00:00:00 ps
```

ps -ef: 可以查看完整的所有进程信息

20

0 11496 1184

0 14944 1120

```
[root@0eecd2f8a665 /] # top 🛹
top - 10:36:34 up 29 min, 0 users, load average: 0.41, 0.90, 0.79
        2 total,
                 1 running,
                               1 sleeping,
                                           0 stopped,
                                                          0 zombie
Tasks:
        2.7%us,
Cpu(s):
                 0.3%sy,
                          0.0%ni, 97.0%id,
                                           0.0%wa, 0.0%hi,
                                                            0.0%si.
      1868660k total, 1629728k used,
                                                            4k buffers
Mem:
                                       238932k free.
Swap:
      4194300k total.
                       102100k used.
                                       4092200k free,
                                                       833572k cached
                   NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
   PID USER
```

832 S

0.0

908 R 0.0 0.1

0.1

0:00.06 bash

0:00.01 top

1 root

14 root

由上可见,容器中仅运行了指定的 bash 应用。这种特点使得 Docker 对资源的利用率极高,是货真价实的轻量级虚拟化。

如果这个时候我们正常退出, exit或者Ctrl+d(退出容器,容器处于终止状态),

docker ps -a (查看容器处于什么状态) 查看容器处于 Exit 状态如果需要正常退出可以使用 CTRL-p+CTRL-q ----就像先按 CTRL -p 然后 CTRL - g 退出伪终端

[root@64f58c7359dd /]# [root@localhost ~]#

[root@localhost ~]#

先按住crtl+p,然后放开p键,但是不放开ctrl键,然后按q,最后回车即可。这样退出容器,容器依然在后台运

行,保持up状态。

```
root@localhost ~] # docker ps -a -
CONTAINER ID
                  IMAGE
                                            COMMAND
                                                              CREATED
                                                                                 STATUS
     PORTS
                        NAMES
64f58c7359dd
                  docker. io/centos: centos6
                                            "/bin/bash"
                                                              22 minutes ago

✓Up 22 minutes
                        sad engelbart
                                           "/bin/bash"
                                                                               ✓Exited (0) 22 minutes
0eecd2f8a665
                  docker. io/centos: centos6
                                                              41 minutes ago
                        fervent_kare
ago
[ root@localhost ~] #
[root@localhost ~] # docker images
                                              IMAGE ID
REPOSITORY
                      TAG
                                                                     CREATED
                                                                                            SIZE
docker.io/centos
                       latest
                                              50dae1ee8677
                                                                     6 months ago
                                                                                            196.7 MB
docker.io/centos
                       centos6
                                              cf2c3ece5e41
                                                                     7 months ago
                                                                                            194.6 MB
[root@localhost ~] # docker run docker.io/centos:latest /bin/echo 'hello world'
hello world 🥓
[root@localhost ~]#
```

上面的命令输出一个"hello world",之后终止容器。(即在容器内执行命令,命令执行完后,就终止容器),这跟在本地直接执行/bin/echo 'hello world'几乎感觉不出任何区别。

```
[root@localhost ~]# docker ps 🏏
CONTAINER ID
                     IMAGE
                                                 COMMAND
                                                                       CREATED
                                                                                            STATUS
                                                                                                                 PO
RTS
                   NAMES
64f58c7359dd
                                                 "/bin/bash"
                                                                       2 hours ago
                     docker, io/centos: centos6
                                                                                           ✓Up 2 hours
                   sad_engelbart
root@localhost ~] # docker ps - a
CONTAINER ID
                                                 COMMAND
                                                                            CREATED
                                                                                                 STATUS
                     IMAGE
           PORTS
                                NAMES
0c73f8990ce9
                     docker. io/centos: latest
                                                 "/bin/echo 'hello wor"
                                                                            48 minutes ago

✓ Exited (0) 47 min

utes ago
                                angry_payne
64f58c7359dd
                                                 "/bin/bash"

√ Up 2 hours

                     docker. io/centos: centos6
                                                                            2 hours ago
                                sad_engelbart
0eecd2f8a665
                     docker. io/centos: centos6
                                                 "/bin/bash"
                                                                            2 hours ago

✓ Exited (0) 2 hour
                                 fervent kare
[root@localhost ~]#
```

docker ps:后面不加参数,只显示up状态的容器;

docker ps -a: 显示所有状态的容器

<mark>总结</mark>: 当利用docker run 来创建容器时,Docker 在后台运行的标准操作包括:

- 1). 检查本地是否存在指定的镜像,不存在就从公有仓库下载
- 2). 利用镜像创建并启动一个容器
- 3).分配一个文件系统,并在只读的镜像层外面挂载一层可读写层
- 4) 从宿主主机配置的网桥接口中桥接一个虚拟接口到容器中去
- 5). 从地址池配置一个ip地址给容器
- 6) 执行用户指定的应用程序
- 7) 执行完毕后容器被终止
- 2、启动exited状态的容器到up状态

[mast@less] bast 1#	dealean no a			
[root@localhost ~]# CONTAINER ID PORTS	docker ps - a IMAGE NAMES	COMMAND	CREATED	STATUS
0c73f8990ce9	docker.io/centos:latest	"/bin/echo 'hello wor"	56 minutes ago	Exited (0) 56 min
utes ago	angry_payne	/bin/ecno necto wor	30 milliores ago	Exited (0) 30 min
64f58c7359dd	docker.io/centos:centos6 sad_engelbart	"/bin/bash"	2 hours ago	Up 2 hours
Oeecd2f8a665 s ago	docker.io/centos:centos6 fervent kare	"/bin/bash"	2 hours ago	✓Exited (0) 2 hour
[root@localhost ~]#	docker start Oeecd2f8a665	格式: docker start	exited状态容器ID	는
0eecd2f8a665	•	ILLEG . GOCKET Start	CARCOLPAGE EN INC.	3
[root@localhost ~]#	docker ps - a			
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
PORTS	NAMES			
0c73f8990ce9	docker. io/centos: latest	"/bin/echo 'hello wor"	56 minutes ago	Exited (0) 56 min
utes ago	angry_payne	Carried and Control of the Control of State Control		Paradelica de la companio del companio de la companio della compan
64f58c7359dd	docker.io/centos:centos6 sad_engelbart	"/bin/bash"	2 hours ago	Up 2 hours
Oeecd2f8a665	docker.io/centos:centos6 fervent_kare	"/bin/bash"	2 hours ago	√ Up 3 seconds
[root@localhost ~]#	Andrews and the second second			
Annual Control of the				

①停止正在运行的容器(当Docker容器中指定的应用终结时,容器也自动终止。例如对于前面所讲中启动了一个终端的容器,用户通过 exit 命令或Ctrl+d来退出终端时,所创建的容器立刻终止

终止状态的容器可以用docker ps -a 命令看到。)

[root@localhost ~]# CONTAINER ID	IMAGE	p3	COMMAND	CREATED	STATUS
PORTS		NAMES			(3-3-4-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-
0c73f8990ce9 utes ago	docker.	io/centos: latest angry_payne	"/bin/echo 'hello wor"	59 minutes ago	Exited (0) 59 min
64f58c7359dd	docker.	io/centos: centos6 sad_engelbart	"/bin/bash"	2 hours ago	✓Up 2 hours
Deecd2f8a665	docker.	io/centos: centos6 fervent kare	"/bin/bash"	2 hours ago	Up 2 minutes
[root@localhost ~]# 64f58c7359dd	docker		格式: docker sto		- \
041300133344				エルイン 多い (1) コーカル ロブ	- 1
[root@localhost ~]#	docker	ps - a	(这是停止止任运行	亍的容器的第一种方法	<u>z</u>)
[root@localhost ~]#	docker IMAGE	ps - a	(这是停止止任运行 COMMAND	T的容器的第一种方法 CREATED	STATUS
[root@localhost ~]#		ps - a NAMES	the state of the s		A contractor of
[root@localhost ~]# CONTAINER ID	IMAGE	#### 81 	the state of the s		A contractor of
[root@localhost ~]# CONTAINER ID PORTS Oc73f8990ce9	IMAGE docker.	NAMES io/centos: latest	COMMAND "/bin/echo 'hello wor" "/bin/bash"	CREATED About an hour ago	STATUS

[root@localhost ~]#	docker	ps - a			
CONTAINER ID	IMAGE	,	COMMAND	CREATED	STATUS
PORTS		NAMES			
0c73f8990ce9 an hour ago	docker.	io/centos: latest	"/bin/echo 'hello wor"	About an hour ago	Exited (0) About
64f58c7359dd econds ago	docker.	angry_payne io/centos:centos6 sad_engelbar	"/bin/bash"	2 hours ago	Exited (137) 16 s
Deecd2f8a665	docker.	io/centos: centos6 fervent kare	"/bin/bash"	2 hours ago	✓ Up 3 minutes
[root@localhost ~]# 0eecd2f8a665	docker		格式: docker kill up		
root@localhost ~]#	docker	ps - a	(停止正在运行的容器的	的第二种方法)	
CONTAINER ID	IMAGE	0.000	COMMAND	CREATED	STATUS
PORTS		NAMES			
0c73f8990ce9 an hour ago	docker.	io/centos: latest angry_payne	"/bin/echo 'hello wor"	About an hour ago	Exited (0) About
64f58c7359dd econds ago	docker.	io/centos: centos6 sad_engelbar	"/bin/bash" t	2 hours ago	Exited (137) 34 s
Oeecd2f8a665 conds ago	docker.	io/centos: centos6 fervent_kare	"/bin/bash"	2 hours ago	√ Exited (137) 4 se
[root@localhost ~]#		**************************************			

②重启容器

[root@localhost ~]#	docker ps - a			
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
PORTS	NAMES			
0c73f8990ce9	docker.io/centos:latest	"/bin/echo 'hello wor"	About an hour ago	Exited (0) About
an hour ago	angry_payne			
64f58c7359dd	docker. io/centos: centos6	"/bin/bash"	2 hours ago	Exited (137) 4 mi
nutes ago	sad_engelbar	t		
Oeecd2f8a665	docker. io/centos: centos6	"/bin/bash"	3 hours ago	Exited (137) 4 mi
nutes ago	fervent_kare		-	
[root@localhost ~] #	docker restart Oeecd2f8a66	5 格式:docker restart	需要重启的容器的ID	문
0eecd2f8a665		1010.docker restart	一大型口口ではいって	7
[root@localhost ~] #	docker ps - a			
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
PORTS	NAMES			
0c73f8990ce9	docker. io/centos: latest	"/bin/echo 'hello wor"	About an hour ago	Exited (0) About
an hour ago	angry_payne			
64f58c7359dd	docker. io/centos: centos6	"/bin/bash"	2 hours ago	Exited (137) 5 mi
nutes ago	sad_engelbar	t		
0eecd2f8a665	docker. io/centos: centos6	"/bin/bash"	3 hours ago	Up 2 seconds
•	fervent_kare			
[root@localhost ~1#				

[root@localhost ~] #

③守护态运行(守护态运行就是在后台运行)

[root@localhost ~] # docker run -d docker.io/centos:latest /bin/sh -c "while true ; do echo hello world ; sleep 1 ; done" 7d94a359158eca2819073576995b565be18eab14489882658e93ceb293bbd00† root@localhost ~] # docker ps - a CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES 7d94a359158e "/bin/sh -c 'while tr" Up 34 seconds docker. io/centos: latest 37 seconds ago determined cori 0c73f8990ce9 docker. io/centos: latest "/bin/echo 'hello wor" About an hour ago Exited (0) About an hour ago angry_payne 64f58c7359dd docker. io/centos: centos6 "/bin/bash" 2 hours ago Exited (137) 21 minutes ago sad_engelbart 0eecd2f8a665 docker. io/centos: centos6 "/bin/bash" 3 hours ago Up 16 minutes fervent_kare root@localhost ~] #

容器启动后会返回一个唯一的 id ,也可以通过dockerps命令来直看容器信息。

- 1. docker run -d 运行一个新的容器, 我们通过-d 命令让他作为一个后台运行
- 2. docker.io/centos:latest 是一个我们想要在内部运行命令的镜像
- 3./bin/sh-c是我们想要在容器内部运行的命令
- 4. while true; do echo hello weibo; sleep 1; done 这是一个简单的脚本,我们仅仅只是每秒打印一次 hello word 一直到我们结束它

或者

CONTAINER ID	st ~] # docker ps - a IMAGE	COMMAND	CREATED	STATUS	PORTS
CONTRACTO ID	NAMES	Solitinite	STEET LES	918199	. 5111
a80320cdf908	docker.io/centos:latest	"/bin/bash"	2 seconds ago	Up 2 seconds	
	tiny_blackwell	Market Market Market			
7d94a359158e	docker. io/centos: latest	"/bin/sh - c 'while tr"	9 minutes ago	Up 9 minutes	
	determined_cori		### 105 10.4%	5-M576 M64-51 55 59 50 59	
0c73f8990ce9	docker. io/centos: latest	"/bin/echo 'hello wor"	About an hour ago	Exited (0) About an hour ago	
	angry_payne	31 -0420	-		
64f58c7359dd	docker. io/centos: centos6	"/bin/bash"	3 hours ago	Exited (137) 30 minutes ago	
	sad_engelbart	1544 (1.00) (2.50) (4.00) (4.00)		STEP STATE OF THE	
Deecd2f8a665	docker. io/centos: centos6	"/bin/bash"	3 hours ago	Up 25 minutes	
	fervent kare	3 182		W	

④查看容器详细信息

```
root@localhost ~] # docker ps - a
                                                  COMMAND
CONTAINER ID
                     TMAGE
                                                                            CREATED
                                                                                                  STATUS
                                                                                                                                   PORTS
              NAMES
a80320cdf908
                     docker. io/centos: latest
                                                  "/bin/bash"
                                                                            7 minutes ago
                                                                                                  Up 7 minutes
              tiny_blackwell
                                                  "/bin/sh - c 'while tr"
7d94a359158e
                     docker. io/centos: latest
                                                                            17 minutes ago
                                                                                                  Up 17 minutes
              determined cori
0c73f8990ce9
                                                  "/bin/echo 'hello wor"
                                                                            About an hour ago
                     docker. io/centos: latest
                                                                                                  Exited (0) About an hour ago
              angry_payne
64f58c7359dd
                     docker. io/centos: centos6
                                                  "/bin/bash"
                                                                            3 hours ago
                                                                                                  Exited (137) 38 minutes ago
              sad_engelbart
0eecd2f8a665
                                                  "/bin/bash"
                                                                            3 hours ago
                                                                                                  Up 32 minutes
                     docker, io/centos; centos6
              fervent_kare
root@localhost ~] # docker inspect a80320cdf908
                                                      格式: docker inspect 需要直看的容器的ID号
        "Id": "a80320cdf90821189959921853d7b336fdddd5e0af221312e023719f31308938",
        "2017- 02- 06T13: 52: 09. 394714265Z",
            "Status": "running",
            "Running": true,
"Paused": false,
             "Restarting": false,
"OOMKilled": false,
            "Dead": false,
"Pid": 56666,
            "ExitCode": 0,
            "Error"
             "StartedAt": "2017- 02- 06T13: 52: 09. 937083455Z",
            "FinishedAt": "0001-01-01T00:00:00Z"
```

只查看指定容器的详细信息的某一个部分

```
root@localhost ~] # docker ps - a
CONTAINER ID
                    IMAGE
                                                COMMAND
                                                                          CREATED
                                                                                              STATUS
                                                                                                                              PORTS
              NAMES
a80320cdf908
                    docker. io/centos: latest
                                                "/bin/bash"
                                                                         14 minutes ago
                                                                                              Up 4 seconds
              tiny_blackwell
                                                "/bin/sh - c 'while tr"
7d94a359158e
                    docker. io/centos: latest
                                                                         24 minutes ago
                                                                                              Up 24 minutes
              determined_cori
                    docker. io/centos: latest
0c73f8990ce9
                                                "/bin/echo 'hello wor"
                                                                         About an hour ago
                                                                                              Exited (0) About an hour ago
                                               "/bin/bash"
64f58c7359dd
                                                                                              Exited (137) 45 minutes ago
                    docker. io/centos: centos6
                                                                         3 hours ago
              sad_engelbart
                    docker. io/centos: centos6
                                               "/bin/bash"
                                                                          3 hours ago
                                                                                              Up 39 minutes
              fervent kare
[root@localhost ~] # docker inspect - f '{{.NetworkSettings.IPAddress}}' a80320cdf908
[root@localhost ~]#
                           用docker inspect 直看容器的ip地址
```

```
root@localhost ~] # docker inspect - f '{{ . Config. Cmd}}'
                                                a80320cdf908
[ root@localhost ~]#
                  用docker inspect查看容器内执行的程序
```

⑤进入容器

在使用 -d 参数时,容器启动后会进入后台。某些时候需要进入容器进行操作,有 很多种方法,包括使用docker attach 命令或nsenter命令。

```
[root@localhost ~] # docker ps - a
CONTAINER ID IMAGE
                                                   COMMAND
                                                                              CREATED
                                                                                                   STATUS
                                                                                                                                     PORTS
              NAMES
a80320cdf908
                     docker. io/centos: latest
                                                   "/bin/bash"
                                                                             22 minutes ago
                                                                                                   Up 7 minutes
7d94a359158e
                     docker. io/centos: latest
                                                  "/bin/sh - c 'while tr"
                                                                             32 minutes ago
                                                                                                   Up 32 minutes
               determined_cori
0c73f8990ce9
                     docker. io/centos: latest
                                                  "/bin/echo 'hello wor"
                                                                                                  Exited (0) About an hour ago
                                                                             About an hour ago
               angry_payne
64f58c7359dd
                     docker. io/centos: centos6
                                                  "/bin/bash"
                                                                             3 hours ago
                                                                                                   Exited (137) 53 minutes ago
               sad_engelbart
0eecd2f8a665
                                                  "/bin/bash"
                     docker. io/centos: centos6
                                                                             3 hours ago
                                                                                                   Up 47 minutes
               fervent_kare
[root@localhost ~]# docker attach a80320cdf908
[root@a80320cdf908] #
                                                       格式: docker attach 需要进入的容器的ID号
```

```
root@localhost ~] # docker ps - a
CONTAINER ID
                                                  COMMAND
                                                                                                  STATUS
                                                                                                                                      PORT
                     IMAGE
                                                                             CREATED
                 NAMES
a80320cdf908
                                                  "/bin/bash"
                     docker. io/centos: latest
                                                                             29 minutes ago
                                                                                                  Exited (0) 2 seconds ago
                 tiny_blackwell
7d94a359158e
                                                  "/bin/sh -c 'while tr"
                     docker. io/centos: latest
                                                                             39 minutes ago

✓ Up 39 minutes

                 determined_cori
0c73f8990ce9
                     docker. io/centos: latest
                                                  "/bin/echo 'hello wor"
                                                                             2 hours ago
                                                                                                  Exited (0) 2 hours ago
                 angry payne
64f58c7359dd
                     docker. io/centos: centos6
                                                  "/bin/bash"
                                                                             3 hours ago
                                                                                                  Exited (137) About an hour ago
                 sad_engelbart
0eecd2f8a665
                     docker. io/centos: centos6
                                                  "/bin/bash"
                                                                             3 hours ago
                                                                                                  Up 54 minutes
                 fervent kare
root@localhost ~] # docker attach -- sig-proxy=false 7d94a359158e
hello world
hello world
hello world
hello world
hello world
hello world
^C[ root@localhost ~] # docker ps
                                                  COMMAND
                                                                                                                        PORTS
CONTAINER ID
                     IMAGE
                                                                             CREATED
                                                                                                  STATUS
   NAMES
7d94a359158e
                     docker. io/centos: latest
                                                  "/bin/sh - c 'while tr"
                                                                            42 minutes ago

√ Up 42 minutes

  determined_cori
                                                  "/bin/bash"
0eecd2f8a665
                     docker, io/centos: centos6
                                                                                                  Up 58 minutes
                                                                             3 hours ago
   fervent_kare
 root@localhost ~]#
```

不使用容器转发信号,允许我们使用 ctrl +c 来退出,执行docker ps 直看在后台运行。

但是使用 attach 命令有时候并不方便。当多个窗口同时 attach 到同一个容器的时候,所有窗口都会同步显示。当某个窗口因命令阻塞时,其他窗口也无法执行操作了。

```
root@localhost ~] # docker ps
CONTAINER ID
                    IMAGE
                                               COMMAND
                                                                        CREATED
                                                                                            STATUS
                                                                                                                PORTS
  NAMES
                                              "/bin/sh - c 'while tr"
7d94a359158e
                   docker. io/centos: latest
                                                                        46 minutes ago
                                                                                            Up 46 minutes
  determined cori
                   docker. io/centos: centos6
                                              "/bin/bash'
eecd2f8a665
                                                                                            Up About an hour
                                                                        4 hours ago
   fervent_kare
[ root@localhost ~] #_docker exec - it Oeecd2f8a665 /bin/bash_
[root@Deecd2f8a665 /]
                                            格式: docker exec -it
                                                                      需要进入的容器ID或者容器名 /bin/bash
```

使用nsenter进入容器(该方法不常用)

安装nsenter工具在util-linux包2.23版本后包含。如果系统中util-linux包没有该命令,可以按照下面的方法从源码安装

#wget https://www.kernel.org/pub/linux/utils/util-linux/v2.24/util-linux2.24.tar.gz

#tar util-linux-2.24.tar.gz

#cd util-linux-2.24

./configure --without-ncurses&& make nsenter

#cpnsenter /usr/local/bin

nsenter可以访问另一个进程的名字空间。nsenter要正常工作需要有 root 权限庆幸的是centos7使用的是util-linux-2.23, 所以就直接使用系统提供的util-linux包了。

[root@localhost ~]# docker exec -it furious_jepsen /bin/bash 为了连接到容器,你还需要找到容器的第一个进程的PID,可以通过下面的命令获取。

PID=\$(docker inspect --format "``.`State`.`Pid`" <container>) 通过这个PID. 就可以连接到这个容器:

nsenter --target \$PID --mount --uts --ipc --net --pid

下面给出一个完整的例子:

```
[root@localhost ~]# docker run -idt centos:centos6 /bin/bash
e8969bbc12e83676746913487320ad121e3d72d70b5e8f3a2f4fadbf8091c535
[root@localhost ~]# docker ps
                                                                                                             PORTS
CONTAINER ID
                     IMAGE
                                           COMMAND
                                                                 CREATED
                                                                                       STATUS
        NAMES
                                           "/bin/bash"
                                                                                       Up 4 seconds
e8969bbc12e8
                     centos:centos6
                                                                 7 seconds ago
        elegant_nobel
[root@localhost ~]# PID=$(docker inspect --format "{{.State.Pid}}" e8969bbc12e8)
[root@localhost ~]# echo $PID
5178
[root@localhost ~]# nsenter --target $PID --mount --uts --ipc --net --pid
```

| 竹: 更简单的,建议大家下载 .bashrc_docker,并将内容放到 .bashrc中。

#wget ~https://github.com/yeasy/docker_practice/raw/master/_local/.bashrc_docker #echo "[-f ~/. bashrc docker] &&. ~/. bashrc docker" >> ~/. bashrc #source ~/. bashrc

这个文件中定义了很多方便使用 Docker 的命令, 例如docker-pid可以获取某个容 器的PID; 而docker-enter 可以进入容器或直接在容器内执行命令。

echo \$ (docker-pid<container>)

docker-enter <container> Is

⑥容器的导入和导出

[root@localhost ~];	# docker ps				
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
NAMES					
7 d 94 a 359158 e	docker.io/centos:latest	"/bin/sh - c 'while	e tr" About an hour ago	Up About an hour	
determined_cori					
0eecd2f8a665	docker. io/centos: centos	"/bin/bash"	4 hours ago	Up About an hour	
fervent_kare					
[root@localhost ~];	docker export 7d94a35919	8e > abc.tar			
root@localhost ~]	# ls\	•			
>	CHI STEPHEN				
abc. tar. Janaconda- I	ks. cfg 公共 模板 视频	图片 文档 下载 音兒	长 卓面		
	# cat abc.tar docker imp				
	7c8d7d83a8b6d685b8c7de2fa		68fa1f		
root@localhost ~]					
REPOSITORY		GE ID CREAT	TED SIZE		
centos7	test 1d9	14220217 5 sec	onds ago 196.7 MB		
docker.io/centos		THE RESERVE AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS	ths ago 196. 7 MB		
docker.io/centos			[1978년(1978년 1978년 - 1978년 - 1978년 1978년 - 1		
		.secese41 / mor	nths ago 194.6 MB		
[root@localhost ~];	* .				

此外,也可以通过指定 URL 或者某个目录来导入,例如

#docker import http://example.com/exampleimage.tgzexample/imagerepo

*注:用户既可以使用docker load 来导入镜像存储文件到本地镜像库,也可以使用docker import 来导入一个容器快照到本 地镜像库。这两者的区别在于容器快照文件将丢弃所有的历史记录和元数据信息(即仅保存容器当时的快照状态),而镜像存 储文件将保存完整记录,体积也要大。此外,从容器快照文件导入时可以重新指定标签等元数据信息。

⑦删除容器

root@localhost CONTAINER ID	~] # docker ps -a IMAGE	COMMAND	CREATED	STATUS	PORT
CONTAINER ID	NAMES	COMMAND	CREATED	314103	FUNI
a80320cdf908	docker. io/centos: latest	"/bin/bash"	59 minutes ago	Exited (0) 30 minutes ago	
-	tiny_blackwell				
7 d 94 a 359158 e	docker.io/centos:latest	"/bin/sh -c 'while tr"	About an hour ago	Up About an hour	
-70f00000	determined_cori	n dhia dasha dhalla sasan	0 1	Fuited (A) A house and	
0c73f8990ce9	docker.io/centos:latest	"/bin/echo 'hello wor"	2 hours ago	Exited (0) 2 hours ago	
outro-zorodd	angry_payne	a did a disease		Fried (407) About the boundary	
64 f 58 c 7359 dd	docker. io/centos: centos6	"/bin/bash"	4 hours ago	Exited (137) About an hour ago	
Deecd2f8a665	sad_engelbart docker.io/centos:centos6	"/bin/bash"	4 hours ago	Up About an hour	
Jeecu2104000	fervent kare	/ 0111/ 04311	4 flours ago	op About an Hour	
root@localhost	~] # docker rm a80320cdf908	校士	从工物,比比大的常即	50DB / 507 (目MISA 人) () () () ()	tonn \
a80320cdf908	, action in accommon	俗式: docker rm [-1]	处于经止从心的谷韶	的ID号(加了-f是删除一个运行中的智	合而)
root@localhost	~] # docker ps - a				
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORT
S	NAMES				
7d94a359158e	docker. io/centos: latest	"/bin/sh - c 'while tr"	About an hour ago	Up About an hour	
	determined_cori	The state of the s	The district of the second state of the second	C. 10 4 (10 4 C. 10 C. 1	
0c73f8990ce9	docker.io/centos:latest	"/bin/echo 'hello wor"	2 hours ago	Exited (0) 2 hours ago	
	angry_payne		0.000	MO) 85X	
64 f 58 c 7359 dd	docker. io/centos: centos6	"/bin/bash"	4 hours ago	Exited (137) About an hour ago	
	sad_engelbart				
0 eecd2f8a 665	docker. io/centos: centos6	"/bin/bash"	4 hours ago	Up About an hour	
	fervent_kare				
root@localhost	~] #				
批量删除氡	2 人 穴 哭				

```
仉里删你夕 | 台皕
 root@localhost ~] # docker rm $( docker ps - a - q)
0c73f8990ce9
64f58c7359dd
Failed to remove container (7d94a359158e): Error response from daemon: Conflict, You cannot remove a running container. Stop the
container before attempting removal or use of Failed to remove container (Oeecd2f8a665): Error response from daemon: Conflict, You cannot remove a running container. Stop the
container before attempting removal or use -f [root@localhost ~]# docker rm -f $(docker ps -a -q)
0eecd2f8a665
 root@localhost ~] # docker ps - a
                                             COMMAND
                                                                   CREATED
                                                                                         STATUS
                                                                                                                PORTS
                                                                                                                                      NAMES
CONTAINER ID
                      IMAGE
[root@localhost ~]#
                        显示素有容器的ID号: docker ps -aq
```

```
[root@localhost ~] # ip a 🛩
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: eno16777736: <BROADCAST, MULTICAST, UP, LOWER_UP> mtu 1500 qdisc pfifo_fast state UP qlen 1000
    link/ether 00: 0c: 29: e7: 13: d3 brd ff: ff: ff: ff: ff
    inet 192.168.1.6/24 brd 192.168.1.255 scope global dynamic eno16777736
       valid_lft 69533sec preferred_lft 69533sec
    inet6 fe80::20c:29ff:fee7:13d3/64 scope link
       valid_lft forever preferred_lft forever
3: virbr0: <NO- CARRIER, BROADCAST, MULTICAST, UP> mtu 1500 gdisc nogueue state DOWN
    link/ether 00:00:00:00:00:00 brd ff:ff:ff:ff:ff
    inet 192. 168. 122. 1/24 brd 192. 168. 122. 255 scope global virbr0
       valid_lft forever preferred_lft forever
4: virbr0-nic: <BROADCAST, MULTICAST> mtu 1500 qdisc pfifo_fast state DOWN qlen 500
    link/ether 52: 54: 00: 41: 14: c8 brd ff: ff: ff: ff: ff
5: docker0: <NO- CARRIER, BROADCAST, MULTICAST, UP> mtu 1500 qdisc noqueue state DOWN
   link/ether 02: 42: da: d9: f9: a1 brd ff: ff: ff: ff: ff: ff
    inet 172.17.0.1/16 scope global docker0
                                                          docker 0:叫虚拟网桥,在主机
       valid_lft forever preferred_lft forever
    inet6 fe80:: 42: daff: fed9: f9a1/64 scope link
                                                         上自动产生,是容器的网关。
       valid_lft forever preferred_lft forever
[ root@localhost ~] #
```

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