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内网靶场虚拟环境搭建

#2课时

VMware虚拟网络编辑

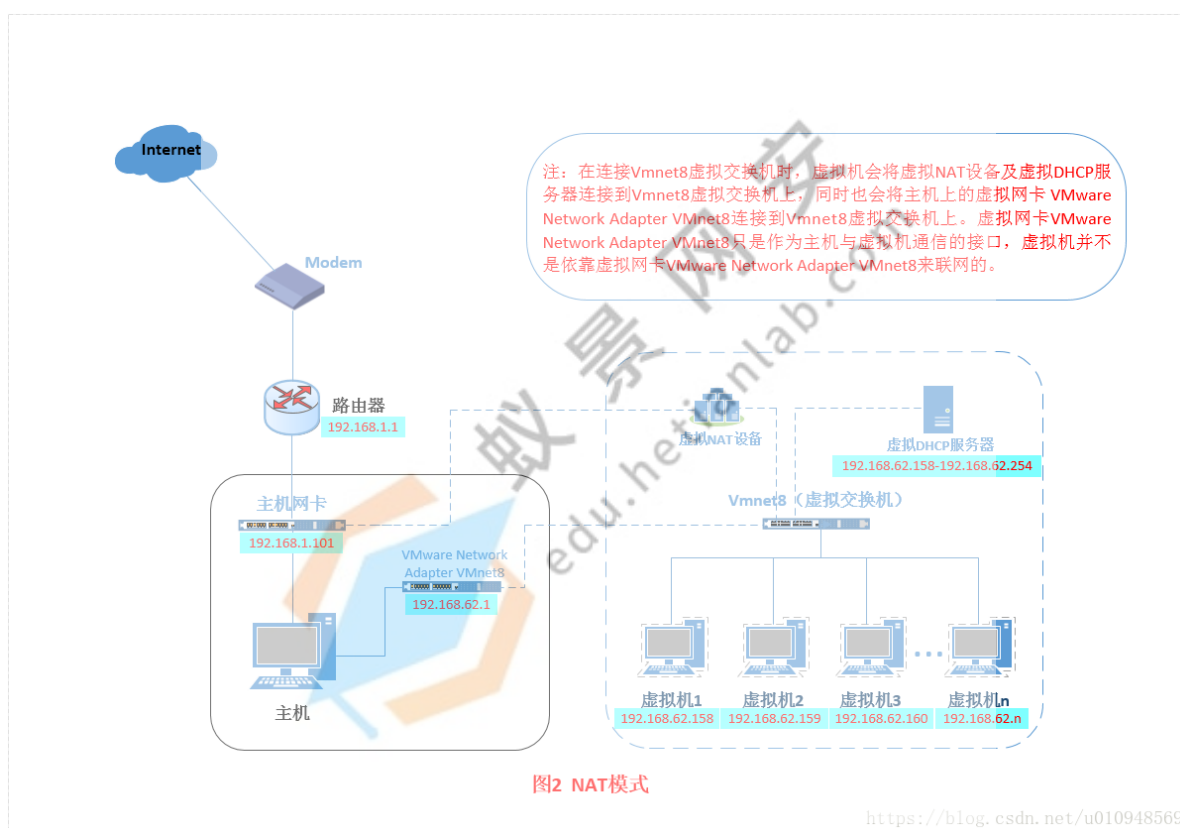
NAT模式

网路适配器：NAT

虚拟网络设置：

- 1 vmnet0: 桥接模式 -- 自动连接
- 2 vmnet1: 仅主机
- 3 vmnet8: NAT模式 -- NAT模式

NAT（地址转换模式）：一般未vmnet1，如果你的网络ip资源紧缺，但是你又希望你的虚拟机能够联网，这时候NAT模式是最好的选择。NAT模式借助虚拟NAT设备和虚拟DHCP服务器，使得虚拟机可以联网。其网络结构如下图所示：



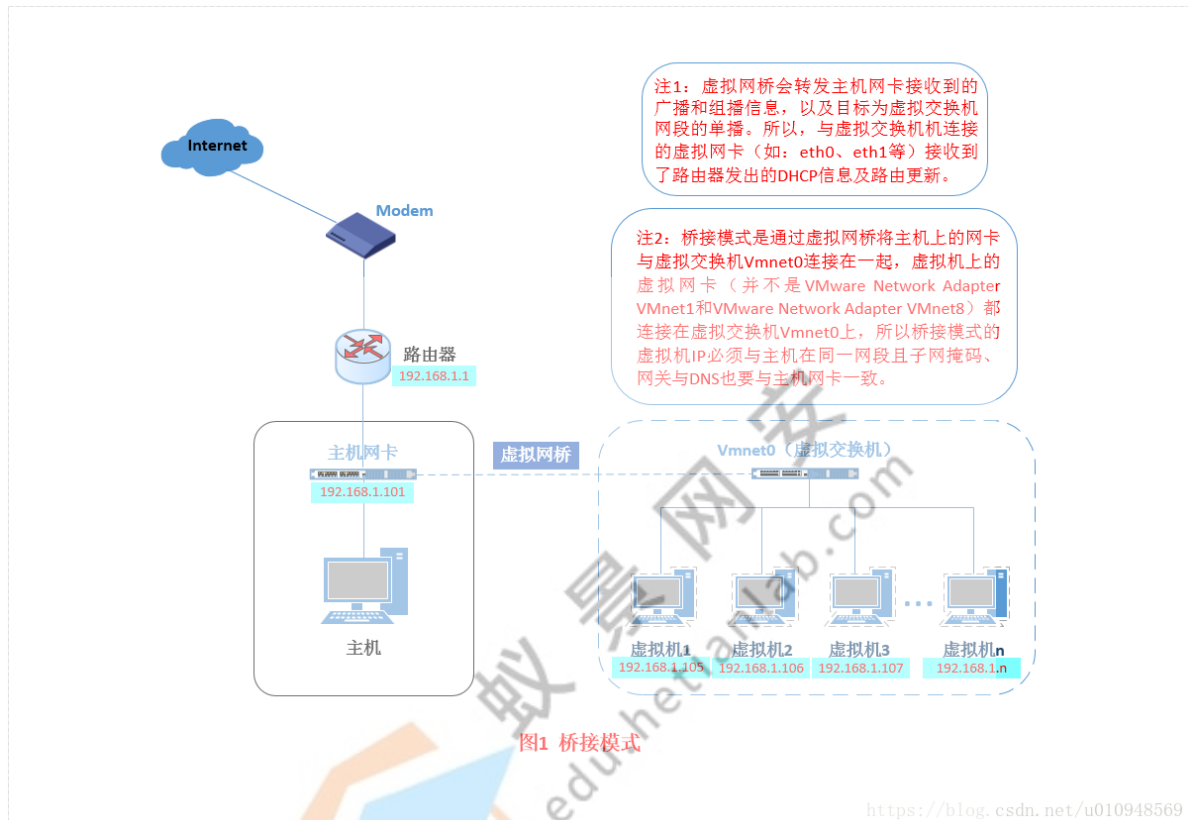
桥接模式

网络适配器：桥接

虚拟网络设置：

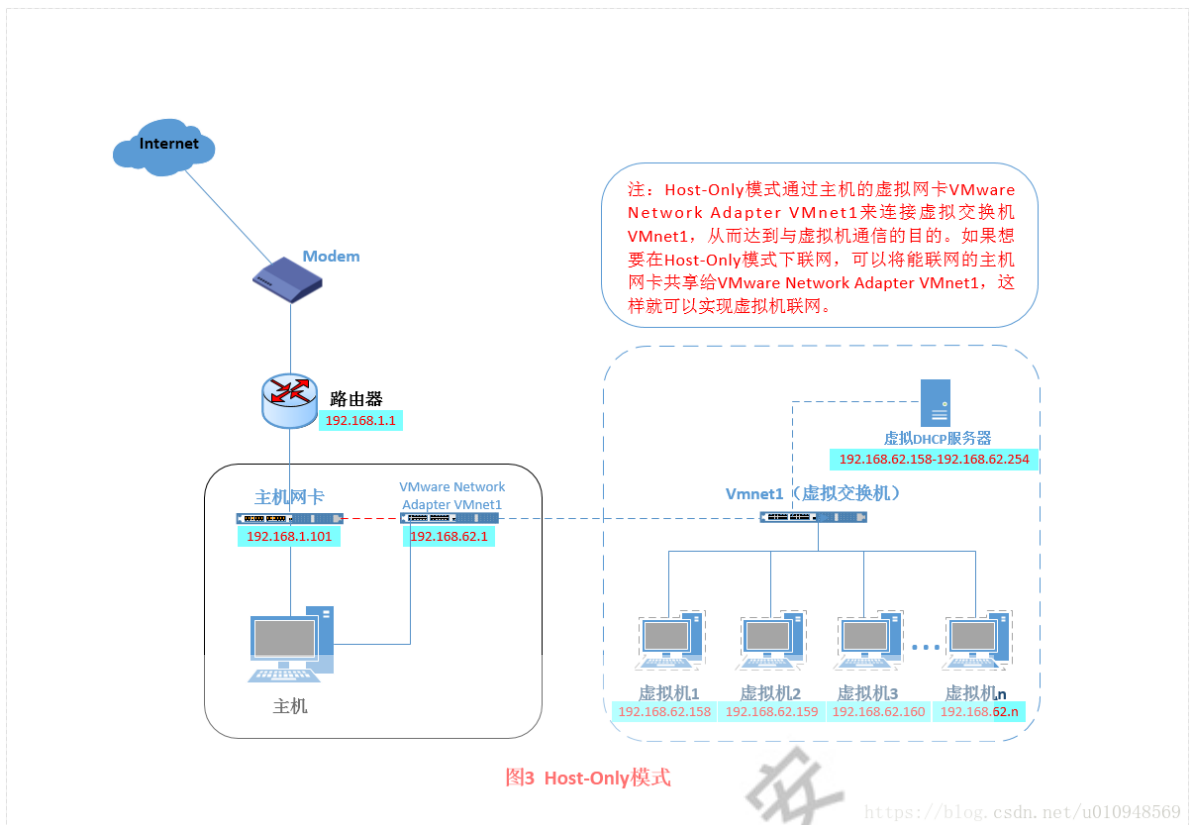
- 1 vmnet0: 桥接模式 -- 选择桥接网卡（有线、无线网卡）
- 2 vmnet1: NAT模式
- 3 vmnet8: 仅主机

Bridge（桥接模式）：一般网卡显示vmnet0，桥接模式就是将主机网卡与虚拟机虚拟的网卡利用虚拟网桥进行通信。在桥接的作用下，类似于把物理主机虚拟为一个交换机，所有桥接设置的虚拟机连接到这个交换机的一个接口上，物理主机也同样插在这个交换机当中，所以所有桥接下的网卡与网卡都是交换模式的，相互可以访问而不干扰。在桥接模式下，虚拟机ip地址需要与主机在同一个网段，如果需要联网，则网关与DNS需要与主机网卡一致。其网络结构如下图所示：



仅主机模式

Host-only（仅主机模式），Host-Only模式其实就是NAT模式去除了虚拟NAT设备，然后使用VMware Network Adapter VMnet1虚拟网卡连接VMnet1虚拟交换机来与虚拟机通信的，Host-Only模式将虚拟机与外网隔开，使得虚拟机成为一个独立的系统，只与主机相互通讯。其网络结构如下图所示：



多层内网环境搭建

环境下载

- 1 链接:<https://pan.baidu.com/s/1yVw3NzmrqraFJEgir7TgqQ>
- 2 提取码:74u9

环境安装

CFS三层内网靶机安装步骤

[CFS三层靶机搭建及其内网渗透【附靶场环境】](#) | [TeamsSix](#)

1. 打开下载文件夹, 每个文件夹分别对应一个靶机

Target1_CentOS7_64位	2022/3/2 10:25	文件夹	
Target2_Ubuntu_64位	2022/3/1 21:19	文件夹	
Target3_Windows7_64位	2022/3/1 21:20	文件夹	
CFS靶机拓扑.eddx	2022/3/1 16:17	EDDX 文件	133 KB
说明.txt	2022/3/1 19:23	TXT 文件	1 KB

2. 进入三个文件夹, 双击打开后缀 .ovf 的文件, 弹出如下导入虚拟机窗口

- 1 虚拟机名称:
- 2 Target1_Centos7
- 3 Target2_Ubuntu
- 4 Target3_windows7
- 5
- 6 虚拟机存储路径:
- 7
- 8 保存虚拟机文件的路径



环境配置

Target1 - Centos7

- 1 root密码: teamssix.com
- 2
- 3 此主机的IP地址:
- 4 192.168.1.11
- 5 192.168.22.11
- 6
- 7 宝塔后台登陆地址及密码:
- 8 地址: http://192.168.1.11:8888/a768f109/
- 9 账号: eaj3yhs1
- 10 密码: 41bb8fee

1. `ifconfig` 查看当前网卡情况

```
[root@localhost network-scripts]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.101.49 netmask 255.255.255.0 broadcast 192.168.101.255
    inet6 fe80::f269:df8e:4a2a:9a62 prefixlen 64 scopeid 0x20<link>
    inet6 fd00:94ec:54bb:a400:385c:d62f:bd42:4179 prefixlen 64 scopeid 0x0<global>
    ether 00:0c:29:2d:d7:3a txqueuelen 1000 (Ethernet)
    RX packets 250 bytes 25791 (25.1 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 211 bytes 20421 (19.9 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ens37: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.101.50 netmask 255.255.255.0 broadcast 192.168.101.255
    inet6 fe80::8385:4780:2cf0:cd6e prefixlen 64 scopeid 0x20<link>
    inet6 fd00:94ec:54bb:a400:f7e1:fa7d:956c:ba35 prefixlen 64 scopeid 0x0<global>
    ether 00:0c:29:2d:d7:44 txqueuelen 1000 (Ethernet)
    RX packets 106 bytes 12721 (12.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 51 bytes 7498 (7.3 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 68 bytes 5916 (5.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 68 bytes 5916 (5.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

virbr0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 192.168.122.1 netmask 255.255.255.0 broadcast 192.168.122.255
    ether 52:54:00:5a:99:42 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

2. 切换到网络配置文件目录，查看配置文件情况

```
1 cd /etc/sysconfig/network-scripts
2 ls
```

```
[root@localhost ~]# ls
anaconda-ks.cfg  Desktop  Downloads  Pictures  Public  thinkphp-5.1.29
bt-uninstall.sh  Documents  Music  proxychains  Templates  Videos
[root@localhost ~]# cd /etc/sysconfig/network-scripts/
[root@localhost network-scripts]# ls
ifcfg-ens33  ifdown-ib  ifdown-routes  ifup-aliases  ifup-isdn  ifup-sit  network-functions
ifcfg-lo  ifdown-ipp  ifdown-sit  ifup-bnep  ifup-plip  ifup-Team  network-functions-ipv6
ifcfg-有线连接_1  ifdown-ipv6  ifdown-Team  ifup-eth  ifup-plusb  ifup-TeamPort
ifdown  ifdown-isdn  ifdown-TeamPort  ifup-ib  ifup-post  ifup-tunnel
ifdown-bnep  ifdown-post  ifdown-tunnel  ifup-ipp  ifup-ppp  ifup-wireless
ifdown-eth  ifdown-ppp  ifup  ifup-ipv6  ifup-routes  init.ipv6-global
[root@localhost network-scripts]#
```

3. 存在 ens33 网卡配置文件 ifcfg-ens33

```
1 [root@localhost network-scripts]# cat ifcfg-ens33
2
3 TYPE=Ethernet
4 PROXY_METHOD=none
5 BROWSER_ONLY=no
6 BOOTPROTO=none
7 DEFROUTE=yes
8 IPV4_FAILURE_FATAL=no
9 IPV6INIT=yes
10 IPV6_AUTOCONF=yes
```

```
11 IPV6_DEFROUTE=yes
12 IPV6_FAILURE_FATAL=no
13 IPV6_ADDR_GEN_MODE=stable-privacy
14 NAME=ens33
15 UUID=321527af-7fd1-48b4-87bf-f9f660bfd5c7
16 DEVICE=ens33
17 ONBOOT=yes
18 HWADDR=00:0C:29:81:A6:6D
19 DNS1=10.2.0.253
20 IPADDR=192.168.1.11
21 PREFIX=24
22 GATEWAY=192.168.1.1
```

4. 存在 ifcfg-有线连接1 配置文件

```
cat ifcfg-有线连接1
rm -rf ifcfg-有线连接1
```

```
1 HWADDR=00:0C:29:81:A6:77
2 TYPE=Ethernet
3 PROXY_METHOD=none
4 BROWSER_ONLY=no
5 BOOTPROTO=none
6 IPADDR=192.168.22.11
7 PREFIX=24
8 GATEWAY=192.168.22.1
9 DEFROUTE=yes
10 IPV4_FAILURE_FATAL=no
11 IPV6INIT=yes
12 IPV6_AUTOCONF=yes
13 IPV6_DEFROUTE=yes
14 IPV6_FAILURE_FATAL=no
15 IPV6_ADDR_GEN_MODE=stable-privacy
16 NAME=$'\746\634\611\747\672\677\750\677\636\746\616\645 1'
17 UUID=a18a03de-36a2-36a2-8514-0232129b08b0
18 ONBOOT=yes
19 AUTOCONNECT_PRIORITY=-999
```

5. 修改ens33网卡配置文件

```
vim ifcfg-ens33
```

```
1 TYPE=Ethernet
2 PROXY_METHOD=none
3 BROWSER_ONLY=no
```

```
4 #BOOTPROTO=none
5 BOOTPROTO=dhcp
6 DEFROUTE=yes
7 IPV4_FAILURE_FATAL=no
8 IPV6INIT=yes
9 IPV6_AUTOCONF=yes
10 IPV6_DEFROUTE=yes
11 IPV6_FAILURE_FATAL=no
12 IPV6_ADDR_GEN_MODE=stable-privacy
13 NAME=ens33
14 UUID=321527af-7fd1-48b4-87bf-f9f660bfd5c7
15 DEVICE=ens33
16 ONBOOT=yes
17 BOOTPROTO=dhcp
```

6. 新增 ens37 网卡配置文件

```
touch ifcfg-ens37
vim ifcfg-ens37
```

```
1 HWADDR=00:0c:29:2d:d7:44
2 TYPE=Ethernet
3 PROXY_METHOD=none
4 BROWSER_ONLY=no
5 BOOTPROTO=none
6 IPADDR=192.168.22.11
7 PREFIX=24
8 GATEWAY=192.168.22.1
9 DEFROUTE=yes
10 IPV4_FAILURE_FATAL=no
11 IPV6INIT=yes
12 IPV6_AUTOCONF=yes
13 IPV6_DEFROUTE=yes
14 IPV6_FAILURE_FATAL=no
15 IPV6_ADDR_GEN_MODE=stable-privacy
16 NAME=ens37
17 UUID=a18a03de-36a2-36a2-8514-0232129b08b0
18 ONBOOT=yes
19 AUTOCONNECT_PRIORITY=-999
```

注意：网卡MAC地址选项需要更改为网卡实际的MAC地址（ether后的字符串）。

7. 新增虚拟网卡

编辑 -> 虚拟网络编辑器 -> 更改设置

默认只有三个虚拟网卡，分别为：

- VMnet0 -- 桥接模式
- VMnet1 -- 仅主机模式
- VMnet8 -- NAT模式



添加网络 -> VMnet2

配置虚拟网卡为仅主机模式，然后修改子网IP为 192.168.22.0，DHCP设置为 192.168.22 网段，应用保存即可

8. 重启网络

```
1 systemctl restart network
```

```
[root@localhost network-scripts]# ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.101.49 netmask 255.255.255.0 broadcast 192.168.101.255
    inet6 fe80::20c:29ff:fe2d:d73a prefixlen 64 scopeid 0x20<link>
    inet6 fd00:94ec:54bb:a400:20c:29ff:fe2d:d73a prefixlen 64 scopeid 0x0<global>
    ether 00:0c:29:2d:d7:3a txqueuelen 1000 (Ethernet)
    RX packets 4201 bytes 355127 (346.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 3016 bytes 418932 (409.1 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

ens37: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.22.11 netmask 255.255.255.0 broadcast 192.168.22.255
    inet6 fd00:94ec:54bb:a400:9d94:ab74:74b1:7567 prefixlen 64 scopeid 0x0<global>
    inet6 fe80::f721:d4c3:9af4:2767 prefixlen 64 scopeid 0x20<link>
    ether 00:0c:29:2d:d7:44 txqueuelen 1000 (Ethernet)
    RX packets 151 bytes 18999 (18.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 104 bytes 15015 (14.6 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 72 bytes 6264 (6.1 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 72 bytes 6264 (6.1 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

virbr0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 192.168.122.1 netmask 255.255.255.0 broadcast 192.168.122.255
    ether 52:54:00:5a:99:42 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@localhost network-scripts]#
```

9. 启动Web服务

```
1 http://192.168.101.48:8888/a768f109/
2 账号: eaj3yhs1
3 密码: 41bb8fee
```

登录宝塔后台 -> 网站 -> 停止或删除之前的网站 -> 添加站点 -> 配置站点 -> 创建



站点创建完成后，访问 `http://192.168.101.48` 即可。

Target2 - Ubuntu

```
1 root密码: teamssix.com
2
3 此主机的IP地址:
4 192.168.22.22
5 192.168.33.22
6
7 宝塔后台登陆地址及密码:
8 地址: http://192.168.22.22:8888/2cc52ec0/
9 账号: xdynr37d
10 密码: 123qwe..
```

1. `ifconfig` 查看当前网卡情况

```

root@ubuntu:~# ifconfig
ens33      Link encap:Ethernet  HWaddr 00:0c:29:ae:85:d9
            inet addr:192.168.101.52  Bcast:192.168.101.255  Mask:255.255.255.0
            inet6 addr: fe80::1bd1:8085:2a60:a615/64 Scope:Link
            inet6 addr: fd00:94ec:54bb:a400:a2:b5a6:54e9:3722/64 Scope:Global
            inet6 addr: fd00:94ec:54bb:a400:3000:b0a8:fbb9:e5/64 Scope:Global
            UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
            RX packets:59 errors:0 dropped:0 overruns:0 frame:0
            TX packets:82 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:9501 (9.5 KB)  TX bytes:11917 (11.9 KB)

ens38      Link encap:Ethernet  HWaddr 00:0c:29:ae:85:e3
            inet addr:192.168.101.51  Bcast:192.168.101.255  Mask:255.255.255.0
            inet6 addr: fe80::9997:4cca:4065:b0b3/64 Scope:Link
            inet6 addr: fd00:94ec:54bb:a400:3cf3:55f0:9a55:402d/64 Scope:Global
            inet6 addr: fd00:94ec:54bb:a400:a48b:e7c1:b42f:2d89/64 Scope:Global
            UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
            RX packets:10249 errors:0 dropped:0 overruns:0 frame:0
            TX packets:9414 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:14574787 (14.5 MB)  TX bytes:857908 (857.9 KB)

lo         Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING  MTU:65536  Metric:1
            RX packets:230 errors:0 dropped:0 overruns:0 frame:0
            TX packets:230 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:17911 (17.9 KB)  TX bytes:17911 (17.9 KB)

root@ubuntu:~#

```

2. 发现都是桥接网络模式



3. 新增虚拟网卡

编辑 -> 虚拟网络编辑器 -> 更改设置 -> 添加网络 -> VMnet3

配置虚拟网卡为仅主机模式，然后修改子网IP为 192.168.33.0，DHCP设置为 192.168.33 网段，应用保存即可



4. 编辑虚拟机设置

更改 **网络适配器** 网络连接为 **自定义: VMnet2**

更改 **网络适配器 2** 网络连接为 **自定义: VMnet3**

5. 重启网络

```
1 systemctl restart networking
```

```

root@ubuntu:/etc/network# ifconfig
ens33      Link encap:Ethernet  HWaddr 00:0c:29:ae:85:d9
            inet addr:192.168.22.11  Bcast:192.168.22.255  Mask:255.255.255.0
            inet6 addr: fe80::1bd1:8085:2a60:a615/64 Scope:Link
            UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
            RX packets:430 errors:0 dropped:0 overruns:0 frame:0
            TX packets:309 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:44679 (44.6 KB)  TX bytes:35232 (35.2 KB)

ens38      Link encap:Ethernet  HWaddr 00:0c:29:ae:85:e3
            inet addr:192.168.33.20  Bcast:192.168.33.255  Mask:255.255.255.0
            inet6 addr: fe80::9997:4cca:4065:b0b3/64 Scope:Link
            UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
            RX packets:388011 errors:0 dropped:0 overruns:0 frame:0
            TX packets:324697 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:565862625 (565.8 MB)  TX bytes:28999519 (28.9 MB)

lo         Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING  MTU:65536  Metric:1
            RX packets:514 errors:0 dropped:0 overruns:0 frame:0
            TX packets:514 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:41635 (41.6 KB)  TX bytes:41635 (41.6 KB)

```

6. 配置静态IP

```

1 root@ubuntu:~# cd /etc/network
2 root@ubuntu:/etc/network# cat interfaces
3 # interfaces(5) file used by ifup(8) and ifdown(8)
4 auto lo
5 iface lo inet loopback
6
7 #auto ens33
8 #iface ens33 inet dhcp
9
10 auto ens33
11 iface ens33 inet static
12 address 192.168.22.22
13 gateway 192.168.22.1
14 network 255.255.255.0
15
16 auto ens38
17 iface ens38 inet static
18 address 192.168.33.22
19 gateway 192.168.33.1
20 network 255.255.255.0

```

6. 启用Web站点

```

1 宝塔后台登陆地址及密码:
2 地址: http://192.168.22.22:8888/2cc52ec0/
3 账号: xdynr37d
4 密码: 123qwe..

```

登录宝塔管理后台 -> 网站 -> 设置 -> 添加域名 192.168.22.22

Target3 - Windows7

```
1 Administrator密码: teamssix.com
2
3 此主机的IP地址:
4 192.168.33.33
```

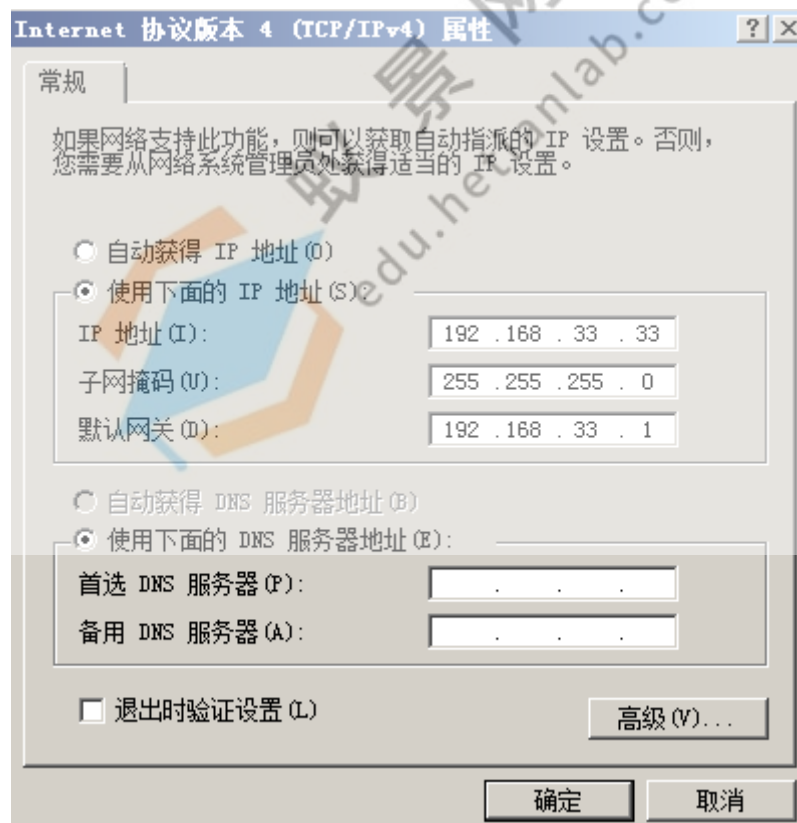
1. 编辑虚拟机设置

更改 **网络适配器** 网络连接为 **自定义: VMnet3**

2. 启动虚拟机

3. 更改网络适配器

控制面板 -> 网络和internet -> 网络和共享中心 -> 更改适配器设置 -> 右键本地连接 -> 属性 -> 禁用 -> 启用



VulnStack域环境搭建

环境下载

- 1 链接: <https://pan.baidu.com/share/init?surl=3nU-0vsGBnGejGCKzwphfQ>
- 2 密码: 41y6

环境安装

安装指南视频

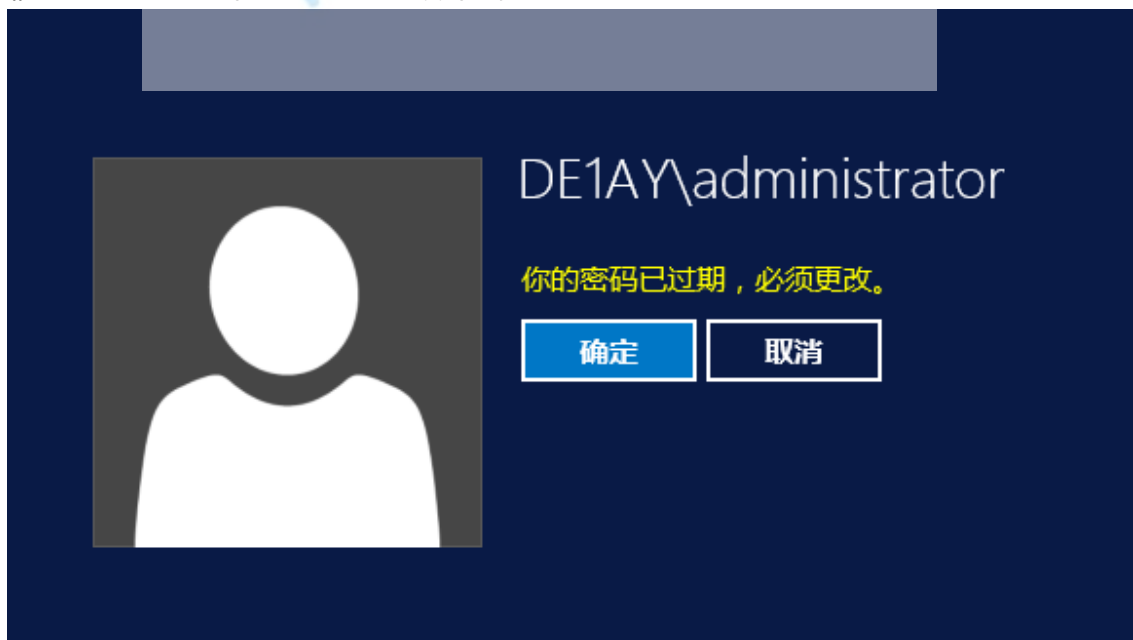
- 1 链接: <https://pan.baidu.com/s/10VYxzNEXvNDxfamje5q1gA>
- 2 提取码: 1rsh

DC

- 1 delay\administrator
- 2 1qaz@WSX
- 3
- 4 delay\delay
- 5 1qaz@WSX
- 6
- 7 delay\mssql
- 8 ;LPL.675766

- 1 网关: 10.10.8.0
- 2 IP: 10.10.8.8

1. 输入密码登录后, 显示密码过期, 修改密码



2. 修改密码


```
1 delay\administrator
2 1qaz@WSX4
```

3. 新增虚拟网卡

编辑 -> 虚拟网络编辑器 -> 更改设置 -> 添加网络 -> VMnet4

配置虚拟网卡为仅主机模式，然后修改子网IP为 10.10.10.0，DHCP设置为 10.10.10 网段，应用保存即可

4. 编辑虚拟机设置

更改 **网络适配器** 网络连接为 **自定义：VMnet4**

5. 更改网络适配器

控制面板 -> 网络和internet -> 网络和共享中心 -> 更改适配器设置 -> 右键本地连接 -> 属性 -> Internet 协议版本4

```
1 使用下面得IP地址：
2 10.10.10.10
3 255.255.255.0
4 10.10.8.1
5
6 使用下面的DNS服务器地址：
7 127.0.0.1
```

PC

本地连接：NAT

本地连接 2：仅主机VMnet4

```
1 10.10.10.201
2 255.255.255.0
3 10.10.10.1
4
5 10.10.10.10
```

WEB

本地连接：NAT

本地连接 2：仅主机VMnet4

```
1 IP:
2 10.10.10.80
3 255.255.255.0
4 10.10.10.1
5 DNS:
6 10.10.10.10
```

```
1 web\administrator: 1qaz@WSX
2 delay\administrator : 1qaz@WSX
3 delay\mssql : 1qaz@WSX
4 delay\delay : 1qaz@WSX
```

用户信息

```
1 域用户及密码:
2
3 delay\administrator : 1qaz@WSX
4
5 [administrator第一次登陆因密码过期需要更改密码]
6
7 delay\mssql : 1qaz@WSX
8
9 delay\delay : 1qaz@WSX
```

windows server 2012 DC 安装 vmtools :

```
1 下载并依次安装KB2919442和KB2919355这两个更新
2
3 https://www.microsoft.com/zh-cn/download/details.aspx?id=42162
4
5 https://www.microsoft.com/zh-cn/download/details.aspx?id=42335
```

云服务器与Docker

云服务器

云服务器介绍

<https://cloud.tencent.com/product/cvm>

<https://www.aliyun.com/product/ecs/>

<https://www.huaweicloud.com/theme/512014-1-G>

一台通过公网访问的虚拟服务器，可以是Windows、Linux系统。

在云计算还没进行普及的时候，个人或企业站点往往都是托管在IDC机房内，每一台物理服务器都需要一台机柜，每次购买物理服务器或者对服务器进行升级，我们的运维人员都需要跑老远去机房，然后在机房进行操作的，比如升级内存，添加新设备等操作。

云服务选购

阿里云、腾讯云、华为云、Ucloud 服务器配置及价格对比：

<http://www.aliyunbc.com/newsinfo/1157113.html>

腾讯云(CVM):

<https://cloud.tencent.com/act/new?from=15099>

1核2G 5M 500G月流量 50G SSD

1年38元

3年150元

2核4G 8M 1200G月流量 80G SSD

1年 74元

3年 222元

阿里云(ECS):

<https://www.aliyun.com/minisite/goods?userCode=cb3vgkf5>

1核2G 1M 40G 1年 38元 3年196元（新用户专享）

华为云(HECS):

https://activity.huaweicloud.com/discount_area_v5/index.html

1核2G 1M 40G 1年 39元

2核4G1M 40G 1年 229元

Docker

Docker简介

- Docker是什么

Docker 是一个开源的应用容器引擎，让开发者可以打包他们的应用以及依赖包到一个可移植的容器中,然后发布到任何流行的Linux机器或Windows 机器上,也可以实现虚拟化,容器是完全使用沙箱机制,相互之间不会有任何接口。

- Docker组成部分

Docker Client客户端
Docker Daemon守护进程
Docker Image镜像
Docker Container 容器

Docker环境安装

- 安装 Docker

1. 添加 Docker PGP key

```
1 curl -fsSL https://mirrors.tuna.tsinghua.edu.cn/docker-ce/linux/debian/gpg | sudo apt-key add -
```

2. 配置 Docker APT repository

```
1 echo 'deb https://mirrors.tuna.tsinghua.edu.cn/docker-ce/linux/debian/ buster stable' | sudo tee /etc/apt/sources.list.d/docker.list
```

3. 更新 APT

```
1 sudo apt update
```

4. 如果安装了旧版本的 Docker，先卸载它们

```
1 sudo apt remove docker docker-engine docker.io
```

5. 安装 Docker

```
1 apt-get install docker-ce
```

6. 查看 Docker 状态

```
1 systemctl status docker
```

7. 启动 Docker

```
1 systemctl start docker
```

8. 开机自动启动

```
1 systemctl enable docker
```

- 安装 docker-compose

```
1 curl -L
  https://get.daocloud.io/docker/compose/releases/download/v2.1.
  0/docker-compose-`uname -s`-`uname -m` >
  /usr/local/bin/docker-compose
2
3 chmod +x /usr/local/bin/docker-compose
```

Docker基础操作

https://blog.csdn.net/m0_37714245/article/details/81713477

Docker镜像操作

- 列出镜像

```
1 docker image ls -a
2 docker images
3
4 REPOSITORY: 镜像所在的仓库名称
5 TAG: 镜像标签
6 IMAGEID: 镜像ID
7 CREATED: 镜像的创建日期(不是获取该镜像的日期)
8 SIZE: 镜像大小
```

```
root@hecs-mingy:~# docker image ls -a
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nginx	latest	605c77e624dd	6 weeks ago	141MB
pwn100	v1	0c1fe931d26f	3 months ago	214MB
dtagdevsec/honeyp	2006	63235df730d1	4 months ago	136MB
djangovueadmin_dvadmin-ui	latest	db7179308991	5 months ago	1.19GB
<none>	<none>	0abbb6645ca8	5 months ago	918MB
mysql	5.7	1d7aba917169	5 months ago	448MB
node	12	dec45d7ab1cf	5 months ago	918MB
python	3.8	3a74a6c04163	5 months ago	909MB

- 拉取镜像

```
1 docker image pull library/hello-world
2
3 docker image pull: 抓取 image 文件的命令
4 library/hello-world: image 文件在仓库里面的位置
5 library: 是 image 文件所在的组
6 hello-world: 是 image 文件的名字
```

由于 Docker 官方提供的 image 文件，都放在library组里面，所以它的是默认组，可以省略。因此，上面的命令可以写成下面这样：

```
1 docker image pull hello-world
```

```
root@hecs-mingy:~# docker image pull library/hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:97a379f4f88575512824f3b352bc03cd75e239179eea0fecc38e597b2209f49a
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
root@hecs-mingy:~# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nginx	latest	605c77e624dd	6 weeks ago	141MB
pwn100	v1	0c1fe931d26f	3 months ago	214MB
hello-world	latest	feb5d9fea6a5	4 months ago	13.3kB

- 删除镜像

```
1 docker image rm 镜像名或镜像id
2 docker rmi 镜像名或镜像id
3 如:
4
5 docker image rm hello-world
6 docker rmi feb5d9fea6a5
```

```
root@hecs-mingy:~# docker image rm hello-world:latest
Untagged: hello-world:latest
Untagged: hello-world@sha256:97a379f4f88575512824f3b352bc03cd75e239179eea0fecc38e597b2209f49a
Deleted: sha256:feb5d9fea6a5e9606aa995e879d862b825965ba48de054caab5ef356dc6b3412
Deleted: sha256:e07ee1baac5fae6a26f30cabfe54a36d3402f96afda318fe0a96cec4ca393359
root@hecs-mingy:~# docker image pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:97a379f4f88575512824f3b352bc03cd75e239179eea0fecc38e597b2209f49a
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
root@hecs-mingy:~# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nginx	latest	605c77e624dd	6 weeks ago	141MB
pwn100	v1	0c1fe931d26f	3 months ago	214MB
hello-world	latest	feb5d9fea6a5	4 months ago	13.3kB
dtagevsec/honeypy	2006	63235d7730d1	4 months ago	136MB
djangovueadmin_dvadmin-ui	latest	db7179308991	5 months ago	1.19GB
mysql	5.7	1d7aba917169	5 months ago	448MB
node	12	dec45d7ab1cf	5 months ago	918MB
python	3.8	3a74a6c04163	5 months ago	909MB
shuize	v1	d0e6bb13973b	5 months ago	1.24GB
mingyl2468/shuize	latest	d0e6bb13973b	5 months ago	1.24GB
python	3.7	af86b73e120c	6 months ago	903MB
redis	latest	ddcca4b8a6f0	6 months ago	105MB
yankovg/python3.8.2-ubuntu18.04	latest	e741c9de8029	21 months ago	736MB
python	2-alpine	8579e446340f	22 months ago	71.1MB
damonevking/redis5.0	latest	3c41ce05add9	2 years ago	95MB
sonamsamdupkhangsar/springboot-docker	latest	a0e068c5fa83	3 years ago	698MB

```
root@hecs-mingy:~# docker rmi feb5d9fea6a5
Untagged: hello-world:latest
Untagged: hello-world@sha256:97a379f4f88575512824f3b352bc03cd75e239179eea0fecc38e597b2209f49a
Deleted: sha256:feb5d9fea6a5e9606aa995e879d862b825965ba48de054caab5ef356dc6b3412
Deleted: sha256:e07ee1baac5fae6a26f30cabfe54a36d3402f96afda318fe0a96cec4ca393359
root@hecs-mingy:~#
```

注意：正在运行容器的镜像是无法删除的

Docker容器操作

- 创建容器

```
1 docker run [option] 镜像名 [向启动容器传入的命令]
```

常用可选参数说明:

- 1 `-i` 表示以“交互模式”运行容器
- 2 `-t` 表示容器启动后会进入其命令行。加入这两个参数后，容器创建就能登录进去。即分配一个伪终端。
- 3 `--name` 为创建的容器命名
- 4 `-v` 表示目录映射关系(前者是宿主机目录，后者是映射到宿主机上的目录，即 宿主机目录:容器中目录)，可以使用多个`-v` 做多个目录或文件映射。注意:最好做目录映射，在宿主机上做修改，然后 共享到容器上。
- 5 `-d` 在`run`后面加上`-d`参数,则会创建一个守护式容器在后台运行(这样创建容器后不会自动登录容器，如果只加`-i -t` 两个参数，创建后就会自动进去容器)。
- 6 `-p` 表示端口映射，前者是宿主机端口，后者是容器内的映射端口。可以使用多个`-p` 做多个端口映射
- 7 `-e` 为容器设置环境变量
- 8 `--network=host` 表示将主机的网络环境映射到容器中，容器的网络与主机相同

```
root@hecs-mingy:~# docker run hello-world
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@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS   NAMES
80955a7e5306   hello-world "/hello"              3 seconds ago Exited (0) 2 seconds ago          stoic_yellow
```

• 交互式容器

- 1 创建一个交互式容器，并命名为`mycentos`
- 2
- 3 `docker run -it --name=mycentos centos /bin/bash`
- 4
- 5 在容器中可以随意执行`linux`命令，就是一个`ubuntu`的环境，当执行`exit`命令退出时，该容器也随之停止。

```
root@hecs-mingy:~# docker run -it --name=mycentos centos /bin/bash
[root@477101cb4e1c /]# hostname
477101cb4e1c
[root@477101cb4e1c /]# whoami
root
[root@477101cb4e1c /]# exit
exit
root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS   NAMES
477101cb4e1c   centos     "/bin/bash"              38 seconds ago Exited (0) 3 seconds ago          mycentos
0ab58607fb6d   dtgdevsec/honey:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
```

• 守护式容器

- 1 创建一个守护式容器，并命名为mycentos2
- 2
- 3 `docker run -dit --name=mycentos2 centos`
- 4
- 5 如果对于一个需要长期运行的容器来说，我们可以创建一个守护式容器。在容器内部 `exit` 退出时，容器也不会停止。

```
root@hecs-mingy:~# docker run -dit --name=mycentos2 centos
61b0f308cae5c03e1b9ddccc88f5f32fa0c6d4889724c48eb2503f39787a4eb
root@hecs-mingy:~# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos        "/bin/bash"             4 seconds ago Up 3 seconds  mycentos2
0ab58607fb6d   dtagdevsec/honey:2006  "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks   festive_golick
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04  "bash"                5 months ago   Up 5 months   shuize
root@hecs-mingy:~# docker exec -it mycentos2 /bin/bash
[root@61b0f308cae5 /]# hostname
61b0f308cae5
[root@61b0f308cae5 /]# whoami
root
[root@61b0f308cae5 /]# ls
bin dev etc home lib lib64 lost+found media mnt opt proc root run sbin srv sys tmp usr var
[root@61b0f308cae5 /]# exit
exit
root@hecs-mingy:~# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos        "/bin/bash"             About a minute Up About a minute  mycentos2
0ab58607fb6d   dtagdevsec/honey:2006  "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks   festive_golick
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04  "bash"                5 months ago   Up 5 months   shuize
root@hecs-mingy:~#
```

• 进入运行容器

- 1 `docker exec -it` 容器名或容器id 进入后执行的第一个命令
- 2
- 3 例如:
- 4
- 5 `docker exec -it mycentos2 /bin/bash`

• 查看容器

- 1 列出本机正在运行的容器
- 2 `docker container ls`
- 3
- 4 列出本机所有容器，包括已经终止运行的
- 5 `docker container ls --all`

```
root@hecs-mingy:~# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos        "/bin/bash"             About a minute Up About a minute  mycentos2
0ab58607fb6d   dtagdevsec/honey:2006  "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks   festive_golick
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04  "bash"                5 months ago   Up 5 months   shuize
root@hecs-mingy:~# docker container ls
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos        "/bin/bash"             2 minutes ago Up 2 minutes  mycentos2
0ab58607fb6d   dtagdevsec/honey:2006  "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks   festive_golick
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04  "bash"                5 months ago   Up 5 months   shuize
root@hecs-mingy:~# docker container ls --all
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos        "/bin/bash"             2 minutes ago Up 2 minutes  mycentos2
477101cb4e1c   centos        "/bin/bash"             6 minutes ago Exited (0) 5 minutes ago  mycentos
0ab58607fb6d   dtagdevsec/honey:2006  "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks   festive_golick
e9bd9d880dfa   pwn100:vl      "sh /service.sh"        3 months ago   Exited (137) 3 months ago  boring_cray
8e1658145c88   sonamsandupkhangsar/springboot-docker  "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago  interesting_herschel
27dd13f187b1   damonevking/redis5.0  "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago  elated_montalcini
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04  "bash"                5 months ago   Up 5 months   shuize
root@hecs-mingy:~#
```

• 停止与启动容器

- 1 停止一个已经在运行的容器
- 2 `docker container stop` 容器名或容器id
- 3 `docker stop` 容器名或容器id
- 4
- 5 启动一个已经停止的容器
- 6 `docker container start` 容器名或容器id
- 7 `docker start` 容器名或容器id
- 8
- 9 kill掉一个已经在运行的容器
- 10 `docker container kill` 容器名或容器id
- 11 `docker kill` 容器名或容器id

```

root@hecs-mingy:~# docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos     "/bin/bash"             12 minutes ago Up 12 minutes          mycentos2
0ab58607fb6d   dtagdevsec/honey.py:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04 "bash"          5 months ago   Up 5 months          shuize

root@hecs-mingy:~# docker stop mycentos2
mycentos2
root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos     "/bin/bash"             39 minutes ago Exited (0) 11 seconds ago          mycentos2
477101cb4e1c   centos     "/bin/bash"             43 minutes ago Exited (0) 42 minutes ago          mycentos
0ab58607fb6d   dtagdevsec/honey.py:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
e9bd9d880dfa   pwn100:v1  "sh /service.sh"        3 months ago   Exited (137) 3 months ago          boring_cray
8e1658145c88   sonamsamdupkhangsar/springboot-docker "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago          interesting_herschel
27dd13f187b1   damonevking/redis5.0 "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago          elated_montalcini
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04 "bash"          5 months ago   Up 5 months          shuize

root@hecs-mingy:~# docker start mycentos2
mycentos2
root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos     "/bin/bash"             40 minutes ago Up 2 seconds          mycentos2
477101cb4e1c   centos     "/bin/bash"             43 minutes ago Exited (0) 42 minutes ago          mycentos
0ab58607fb6d   dtagdevsec/honey.py:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
e9bd9d880dfa   pwn100:v1  "sh /service.sh"        3 months ago   Exited (137) 3 months ago          boring_cray
8e1658145c88   sonamsamdupkhangsar/springboot-docker "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago          interesting_herschel
27dd13f187b1   damonevking/redis5.0 "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago          elated_montalcini
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04 "bash"          5 months ago   Up 5 months          shuize

root@hecs-mingy:~# docker kill mycentos2
mycentos2
root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos     "/bin/bash"             40 minutes ago Exited (137) 3 seconds ago          mycentos2
477101cb4e1c   centos     "/bin/bash"             43 minutes ago Exited (0) 43 minutes ago          mycentos
0ab58607fb6d   dtagdevsec/honey.py:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
e9bd9d880dfa   pwn100:v1  "sh /service.sh"        3 months ago   Exited (137) 3 months ago          boring_cray
8e1658145c88   sonamsamdupkhangsar/springboot-docker "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago          interesting_herschel
27dd13f187b1   damonevking/redis5.0 "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago          elated_montalcini
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04 "bash"          5 months ago   Up 5 months          shuize

```

• 删除容器

- 1 `docker container rm` 容器名或容器id
- 2 `docker rm` 容器名或容器id

```

root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
61b0f308cae5   centos     "/bin/bash"             40 minutes ago Exited (137) 3 seconds ago          mycentos2
477101cb4e1c   centos     "/bin/bash"             43 minutes ago Exited (0) 43 minutes ago          mycentos
0ab58607fb6d   dtagdevsec/honey.py:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
e9bd9d880dfa   pwn100:v1  "sh /service.sh"        3 months ago   Exited (137) 3 months ago          boring_cray
8e1658145c88   sonamsamdupkhangsar/springboot-docker "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago          interesting_herschel
27dd13f187b1   damonevking/redis5.0 "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago          elated_montalcini
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04 "bash"          5 months ago   Up 5 months          shuize

root@hecs-mingy:~# docker rm mycentos2
mycentos2
root@hecs-mingy:~# docker rm 477101cb4e1c
477101cb4e1c
root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS        NAMES
0ab58607fb6d   dtagdevsec/honey.py:2006 "/opt/honey.py/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
e9bd9d880dfa   pwn100:v1  "sh /service.sh"        3 months ago   Exited (137) 3 months ago          boring_cray
8e1658145c88   sonamsamdupkhangsar/springboot-docker "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago          interesting_herschel
27dd13f187b1   damonevking/redis5.0 "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago          elated_montalcini
11e2d4a39d82   yankovg/python3.8.2-ubuntu18.04 "bash"          5 months ago   Up 5 months          shuize

```

容器保存为镜像

- 1 `docker commit` 容器名 镜像名
- 2 `docker commit mycentos3 mycentos3`

```

root@hecs-mingy:~# docker run -dit --name=mycentos3 centos /bin/bash
b2c5c1308dda3b6c4b9682a2aced481b491486bbc255625c0470ce63d532f7fd
root@hecs-mingy:~# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
b2c5c1308dda   centos        "/bin/bash"             3 seconds ago Up 3 seconds          mycentos3
0ab58607fb6d   dtagdevsec/honeypypy:2006   "/opt/honeypypy/env/bi..." 5 weeks ago   Up 5 weeks          festive_golick
e9bd9d880dfa   pwn100:v1     "sh /service.sh"        3 months ago   Exited (137) 3 months ago   boring_cray
8e1658145c88   sonamsamdupkhangsar/springboot-docker   "java -jar /code/tar..." 5 months ago   Exited (143) 5 months ago   interesting_herschel
27dd13f187b1   damonevking/redis5.0       "docker-entrypoint.s..." 5 months ago   Exited (137) 5 months ago   elated_montalcini
11e2d4a39d82   yankovo/python3.8.2-ubuntu18.04         "bash"                  5 months ago   Up 5 months          shuize
root@hecs-mingy:~# docker commit mycentos3 mycentos3
sha256:3ddc6eb3b9b0d587454514cf09678984cefaca701d55088663be531c4393c10a
root@hecs-mingy:~# docker images
REPOSITORY      TAG        IMAGE ID        CREATED        SIZE
mycentos3       latest     3ddc6eb3b9b0    4 seconds ago  231MB
nginx           latest     605c77e624dd    6 weeks ago    141MB
pwn100          v1         0c1fe931d26f    3 months ago   214MB
hello-world     latest     feb5d9fea6a5    4 months ago   13.3kB
dtagdevsec/honeypypy 2006       63235df730d1    4 months ago   136MB
centos          latest     5d0da3dc9764    5 months ago   231MB

```

镜像备份与迁移

可以通过save命令将镜像打包成文件，拷贝给别人使用

- 1 `docker save -o 保存的文件名 镜像名`
- 2 `docker save -o ./mycentos3.tar mycentos3`

```

root@hecs-mingy:~# docker images
REPOSITORY      TAG        IMAGE ID        CREATED        SIZE
mycentos3       latest     3ddc6eb3b9b0    4 seconds ago  231MB
nginx           latest     605c77e624dd    6 weeks ago    141MB
pwn100          v1         0c1fe931d26f    3 months ago   214MB
hello-world     latest     feb5d9fea6a5    4 months ago   13.3kB
dtagdevsec/honeypypy 2006       63235df730d1    4 months ago   136MB
centos          latest     5d0da3dc9764    5 months ago   231MB
djangovueadmin_dvadmin-ui latest     db7179308991    5 months ago   1.19GB
mysql           5.7        1d7aba917169    5 months ago   448MB
node            12         dec45d7ab1cf    5 months ago   918MB
python          3.8        3a74a6c04163    5 months ago   909MB
shuize           v1         d0e6bb13973b    5 months ago   1.24GB
mingy12468/shuize latest     d0e6bb13973b    5 months ago   1.24GB
python          3.7        af86b73e120c    6 months ago   903MB
redis           latest     ddcca4b8a6f0    6 months ago   105MB
yankovg/python3.8.2-ubuntu18.04 latest     e741c9de8029    21 months ago  736MB
python          2-alpine   8579e446340f    22 months ago  71.1MB
damonevking/redis5.0 latest     3c41ce05add9    2 years ago    95MB
sonamsamdupkhangsar/springboot-docker latest     a0e068c5fa83    3 years ago    698MB
root@hecs-mingy:~# docker save -o ./mycentos.tar mycentos3
root@hecs-mingy:~# ll mycentos.tar
-rw----- 1 root root 238581248 Feb 15 14:36 mycentos.tar
root@hecs-mingy:~#

```

对方在拿到镜像文件后，可以通过load方法，将镜像加载到本地

- 1 `docker load -i ./centos.tar`

```

root@hecs-mingy:~# docker images
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
nginx                latest       605c77e624dd     6 weeks ago     141MB
pwn100              v1          0c1fe931d26f     3 months ago     214MB
hello-world         latest       feb5d9fea6a5     4 months ago     13.3kB
dtagdevsec/honeypy  2006        63235df730d1     4 months ago     136MB
centos               latest       5d0da3dc9764     5 months ago     231MB
djangovueadmin_dvadmin-ui latest       db7179308991     5 months ago     1.19GB
mysql               5.7         1d7aba917169     5 months ago     448MB
node                12          dec45d7ab1cf     5 months ago     918MB
python              3.8         3a74a6c04163     5 months ago     909MB
shuize              v1          d0e6bb13973b     5 months ago     1.24GB
mingy12468/shuize   latest       d0e6bb13973b     5 months ago     1.24GB
python              3.7         af86b73e120c     6 months ago     903MB
redis               latest       ddcca4b8a6f0     6 months ago     105MB
yankovg/python3.8.2-ubuntu18.04 latest       e741c9de8029     21 months ago     736MB
python              2-alpine    8579e446340f     22 months ago     71.1MB
damonevking/redis5.0 latest       3c41ce05add9     2 years ago      95MB
sonamsamdupkhangsar/springboot-docker latest       a0e068c5fa83     3 years ago      698MB
root@hecs-mingy:~# ll mycentos.tar
-rw-r----- 1 root root 238581248 Feb 15 14:36 mycentos.tar
root@hecs-mingy:~# docker load -i mycentos.tar
Loaded image: mycentos3:latest
root@hecs-mingy:~# docker images
REPOSITORY          TAG          IMAGE ID          CREATED          SIZE
mycentos3           latest       3ddc6eb3b9b0     6 minutes ago     231MB
nginx                latest       605c77e624dd     6 weeks ago     141MB
pwn100              v1          0c1fe931d26f     3 months ago     214MB
hello-world         latest       feb5d9fea6a5     4 months ago     13.3kB
dtagdevsec/honeypy  2006        63235df730d1     4 months ago     136MB
centos               latest       5d0da3dc9764     5 months ago     231MB
djangovueadmin_dvadmin-ui latest       db7179308991     5 months ago     1.19GB
mysql               5.7         1d7aba917169     5 months ago     448MB
node                12          dec45d7ab1cf     5 months ago     918MB
python              3.8         3a74a6c04163     5 months ago     909MB
shuize              v1          d0e6bb13973b     5 months ago     1.24GB
mingy12468/shuize   latest       d0e6bb13973b     5 months ago     1.24GB
python              3.7         af86b73e120c     6 months ago     903MB
redis               latest       ddcca4b8a6f0     6 months ago     105MB
yankovg/python3.8.2-ubuntu18.04 latest       e741c9de8029     21 months ago     736MB
python              2-alpine    8579e446340f     22 months ago     71.1MB
damonevking/redis5.0 latest       3c41ce05add9     2 years ago      95MB
sonamsamdupkhangsar/springboot-docker latest       a0e068c5fa83     3 years ago      698MB
root@hecs-mingy:~#

```

Docker搭建漏洞靶场

vulhub

- 1 <https://github.com/vulhub/vulhub>
- 2
- 3 <https://hub.docker.com/u/vulhub>

vulnapp

- 1 <https://github.com/Medicean/VulApps>
- 2
- 3 <https://hub.docker.com/r/medicean/vulapps>

vulfocus

```
1 https://github.com/fofapro/vulfocus
2
3 http://vulfocus.fofa.so/#/
4
5 https://hub.docker.com/u/vulfocus
```

