



链滴

记录一次 Linux 综合环境搭建

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来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

一，镜像有源文件配置

如果未安装vim 使用gedit进行编辑

进入 /etc/apt 备份sources.list

修改sources.list 删除原内容，添加如下镜像源

```
deb http://mirrors.aliyun.com/ubuntu/ xenial main
deb-src http://mirrors.aliyun.com/ubuntu/ xenial main
```

```
deb http://mirrors.aliyun.com/ubuntu/ xenial-updates main
deb-src http://mirrors.aliyun.com/ubuntu/ xenial-updates main
```

```
deb http://mirrors.aliyun.com/ubuntu/ xenial universe
deb-src http://mirrors.aliyun.com/ubuntu/ xenial universe
deb http://mirrors.aliyun.com/ubuntu/ xenial-updates universe
deb-src http://mirrors.aliyun.com/ubuntu/ xenial-updates universe
```

```
deb http://mirrors.aliyun.com/ubuntu/ xenial-security main
deb-src http://mirrors.aliyun.com/ubuntu/ xenial-security main
deb http://mirrors.aliyun.com/ubuntu/ xenial-security universe
deb-src http://mirrors.aliyun.com/ubuntu/ xenial-security universe
```

安装远程连接ssh

```
openssh sudo apt-get install openssh-server -y
```

```
sudo apt-get install vim -y
```

二，基本配置

1，网卡配置

增加一开网卡host-only，配置host-only 与NAT两种方式，host-only用于内网连接，NAT用于连接网

具体配置方式[参见](#)

2，增加用户

```
sudo adduser neo
```

//输入密码

```
sudo usermod -G sudo neo
```

//设置使用root权限

三，安装DNS解析——bind9

安装命令

```
sudo apt-get install bind9 -y
```

安装部署一个 Bind9 的 DNS 服务器，实现对域 oasis.com 内的各类主机的域名解析。实现对mail.oasis.com, web.oasis.com, ns.oasis.com, race.oasis.com, shining.oasis.com, game.oasis.com 域名的正向解析(所有域名对应的 IP 地址都指向 192.168.0.101)。同时提供对上述域名的反向域名解析功能。

配置步骤如下

```
sudo vim /etc/bind/named.conf.local
```

```
zone "oasis.com" {
type master;
file "/etc/bind/forward.oasis.com";
};
```

```
zone "0.168.192.in-addr.arpa" {
type master;
file "/etc/bind/reverse.oasis.com";
};
```

```
sudo cp db.empty forward.oasis.com
```

```
sudo vi forward.oasis.com
```

```
;
```

```
; BIND data file for local loopback interface
```

```
;
```

```
$TTL 604800
```

```
@ IN SOA ns.oasis.com. root.oasis.com. (
```

```
2 ; Serial
```

```
604800 ; Refresh
```

```
86400 ; Retry
```

```
2419200 ; Expire
```

```
604800 ) ; Negative Cache TTL
```

```
;
```

```
@ IN NS ns.oasis.com.
```

```
@ IN MX 5 mail.oasis.com.
```

```
ns IN A 192.168.0.101
```

```
mail IN A 192.168.0.101
```

```
web IN A 192.168.0.101
```

```
race IN A 192.168.0.101
```

```
shining IN A 192.168.0.101
```

```
game IN A 192.168.0.101
```

```
sudo cp db.empty reverse.oasis.com
```

```
sudo vi reverse.oasis.com
```

```
;
```

```
; BIND reverse data file for local loopback interface
```

```
;
```

```
$TTL 604800
```

```
@ IN SOA ns.oasis.com. root.oasis.com (
```

```
2 ; Serial
```

```
604820 ; Refresh
```

```
864500 ; Retry
```

```
2419270 ; Expire
```

```
604880 ) ; Negative Cache TTL
;
@ IN NS ns.oasis.com.

101 IN PTR ns.oasis.com.
101 IN PTR mail.oasis.com.
101 IN PTR web.oasis.com.
101 IN PTR race.oasis.com.
101 IN PTR shining.oasis.com.
101 IN PTR game.oasis.com.
```

```
sudo service bind9 restart
```

修改网卡, 添加DNS服务器192.168.0.101

输入nslookup (查看域名服务器)

四, 具体网址解析配置

1, 安装nginx

```
sudo apt-get install nginx -y
sudo service nginx start
sudo ufw allow 80
```

建立网址主页

```
sudo mkdir -p /var/www/race.oasis.com/html
sudo vi /var/www/race.oasis.com/html/index.html
```

```
<html>
  <head>
    <title>Welcome to race.oasis.com!</title>
  </head>
  <body>
    <h1> race.oasis.com</h1>
  </body>
</html>
```

```
sudo vi /etc/nginx/sites-available/race.oasis.com
server {
listen 80;
listen [::]:80;

root /var/www/race.oasis.com/html;
index index.html index.htm index.nginx-debian.html;

server_name race.oasis.com www.race.oasis.com;

location / {
    try_files $uri $uri/ =404;
  }
}
```

```
sudo ln -s /etc/nginx/sites-available/race.oasis.com /etc/nginx/sites-enabled/  
//编辑配置位置释放server....  
sudo vi /etc/nginx/nginx.conf  
http {  
...  
server_names_hash_bucket_size 64;  
...  
}
```

更新nginx 启动配置

```
sudo nginx -t  
sudo systemctl restart nginx
```

2, 增加SSL

配置 Nginx 服务器, 使得网站支持 443 端口的 https 加密数据传输。并使得可以通过加密协议通道 <https://race.oasis.com> 来访问该网站。该方式产生的是本地的SSL浏览器一般不认, 会显示有危险

```
sudo mkdir /etc/nginx/ssl  
sudo openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout /etc/nginx/ssl/nginx.key  
out /etc/nginx/ssl/nginx.crt
```

```
sudo vi /etc/nginx/sites-available/race.oasis.com  
server {  
listen 80;  
listen [::]:80;  
listen 443 ssl;
```

```
root /var/www/race.oasis.com/html;  
index index.html index.htm index.nginx-debian.html;
```

```
server_name race.oasis.com www.race.oasis.com;  
ssl_certificate /etc/nginx/ssl/nginx.crt;  
ssl_certificate_key /etc/nginx/ssl/nginx.key;  
location / {  
try_files $uri $uri/ =404;  
}  
}
```

```
sudo service nginx restart
```

3, 支持php

在 Nginx 服务器中安装 PHP FastCGI Process Manager 软件, 让服务器实现对 PHP 语言的解析。为 <http://shining.oasis.com> 网站编写一个 index.php 首页文件。该文件内容为

```
<?php  
phpinfo();  
?>
```

安装php

```
sudo apt-get install php-fpm php-mysql
sudo apt-get install php7.2
//修改配置
sudo vi /etc/php/7.2/fpm/php.ini
cgi.fix_pathinfo=0;
sudo systemctl restart php7.2-fpm.service
```

配置nginx解析

```
sudo vi /etc/nginx/sites-available/shining.oasis.com
server {
listen 80;
listen [::]:80;

root /var/www/shining.oasis.com/html;
index index.php index.htm index.nginx-debian.html;

server_name shining.oasis.com www.shining.oasis.com;
location / {
try_files $uri $uri/ =404;
}

location ~ /\.php$ {
include snippets/fastcgi-php.conf;
fastcgi_pass unix:/run/php/php7.2-fpm.sock;
}

location ~ /\.ht {
deny all;
}

}
```

```
sudo ln -s /etc/nginx/sites-available/shining.oasis.com /etc/nginx/sites-enabled/
sudo nginx -t
sudo systemctl reload nginx
sudo mkdir -p /var/www/shining.oasis.com/html
sudo vi /var/www/shining.oasis.com/html/index.php
<?php
phpinfo(INFO_LICENSE);
?>
```

```
sudo systemctl reload nginx
```

重载nginx进行检验

五，安装Java与tomcat

```
//安装jdk安装镜像默认的jdk
sudo apt-get install default-jdk(sudo apt-get install openjdk-8-jdk)
//安装tomcat
sudo apt-get install tomcat8
sudo apt-get install tomcat8-docs tomcat8-examples tomcat8-admin
//允许tomcat默认端口
```

```
sudo ufw allow 8080
//重启tomcat
systemctl start tomcat8
```

配置解析tomcat

```
sudo vi /etc/nginx/sites-available/game.oasis.com
sudo ln -s /etc/nginx/sites-available/game.oasis.com /etc/nginx/sites-enabled/
server {
listen    80;
server_name game.oasis.com;

location / {
root    /var/www/game.oasis.com/html;
proxy_pass http://127.0.0.1:8080; //代理
index  index.html index.htm;
}

}
//更新nginx配置
sudo systemctl reload nginx
```

邮件

```
sudo apt install mailutils //安装邮件系统
```

```
sudo vi /etc/postfix/main.cf
```

```
inet_interfaces = loopback-only //使得只能内网发送，如果发外网改为all
```

```
sudo systemctl restart postfix
//重启后发送测试信息
echo 'it is only a test' | mail -s "test email" neo@oasis.com
```

数据库

```
sudo apt-get install mysql-server //安装数据库
//登录数据库
mysql -u root -p
//设置密码与建立数据库
set password for root@localhost = password('oracle');
create database zion;
```

```
/*
//修改数据库端口
/etc/mysql/mysql.conf.d/
编辑sudo vim mysqld.cnf
port=3366加
```

```
mysql -u root -P 3366 -h localhost -D zion -poracle
*/
```

```
mysql -u root -h localhost -poracle
```

```
show global variables like 'port';
```

```
service mysql stop  
service mysql start
```

配置防火墙

```
sudo ufw allow 22 25 80 443 110 143
```

在虚拟机上添加两块 100M 的新磁盘，把两个新磁盘做成 RAID1，实现对数据的冗余备份存储。RAID 磁盘被 mount 到 /mnt/md0 节点下。

```
sudo fdisk -l  
sudo mdadm --create --auto=yes /mnt/md1 --level=1 --raid-devices=2 /dev/{sdb,sdc}
```

```
mdadm --detail /mnt/md1
```