

Cài đặt và quản trị các dịch vụ cơ bản của Ubuntu

Hướng dẫn Cài đặt dns, apache và mailserver

1 server

- Cài đặt thành công DNS và email;
- Cài đặt và cấu hình thành công dịch vụ Email trên máy chủ

Thực hiện câu lệnh

- `sudo su`
- `sudo ifconfig eth0 192.168.200.4 netmask 255.255.255.0`

//để cấu hình tĩnh cho mạng eth0

Cấu hình DNS ra mạng bằng địa chỉ Google

- Gõ lệnh:

- `nano /etc/bind/named.conf.options`
- Bỏ // và thêm 2 địa chỉ 8.8.8.8 và 8.8.4.4 vào **forwarders** như hình

```
options {
    directory "/var/cache/bind";

    // If there is a firewall between you and nameservers you want
    // to talk to, you may need to fix the firewall to allow multiple
    // ports to talk.  See http://www.kb.cert.org/vuls/id/800113

    // If your ISP provided one or more IP addresses for stable
    // nameservers, you probably want to use them as forwarders.
    // Uncomment the following block, and insert the addresses replacing
    // the all-0's placeholder.

    forwarders {
        8.8.8.8;
        8.8.4.4;
    };
};
```

```
forwarders {
    8.8.8.8;
    8.8.4.4;
};
```

Thêm zone

- Gõ lệnh:

- `nano /etc/bind/named.conf.local`
- Thêm 2 zone: **1 zone forward** và **1 zone reverse** như hình

```
GNU nano 4.8
//
// Do any local configuration here
//
// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

zone "ptit.com" {
    type master;
    file "/etc/bind/ptit.com.fw";
};
zone "200.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/ptit.com.rv";
};
```

```
zone "ptit.com" {
    type master;
    file "/etc/bind/ptit.com.fw";
};
zone "200.168.192.in-addr.arpa" {
    type master;
    file "/etc/bind/ptit.com.rv";
};
```

Copy và chỉnh sửa file

- Gõ 2 lệnh để copy

- `cp /etc/bind/db.local /etc/bind/ptit.com.fw`
- `cp /etc/bind/db.127 /etc/bind/ptit.com.rv`

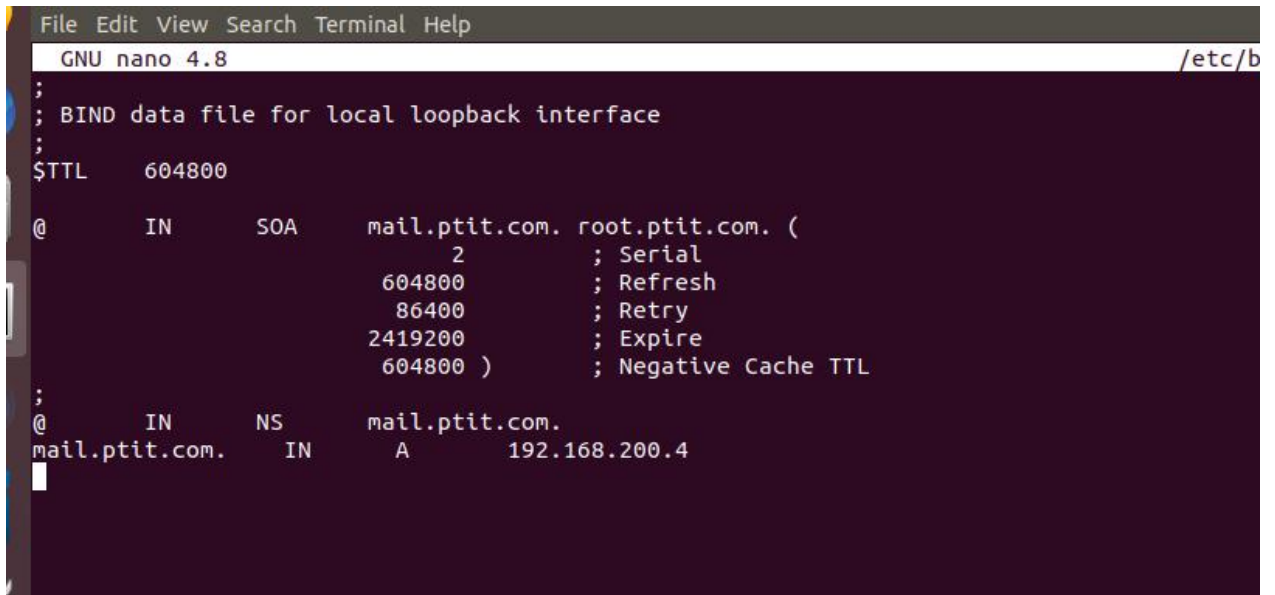
Chỉnh sửa file: chỉnh sửa `/etc/bind/ptit.com.fw`

```
● nano /etc/bind/ptit.com.fw
;
; BIND data file for local loopback interface
;
$TTL 604800
@ IN SOA mail.ptit.com. root.ptit.com. (
    2      ; Serial
    604800 ; Refresh
    86400  ; Retry
```

```

        2419200      ; Expire
        604800 )    ; Negative Cache TTL
;
@      IN      NS      mail.ptit.com.
mail.ptit.com.  IN      A      192.168.200.4

```



```

File Edit View Search Terminal Help
GNU nano 4.8 /etc/b
;
; BIND data file for local loopback interface
;
$TTL      604800
@      IN      SOA      mail.ptit.com. root.ptit.com. (
                        2      ; Serial
                        604800 ; Refresh
                        86400  ; Retry
                        2419200 ; Expire
                        604800 ) ; Negative Cache TTL
;
@      IN      NS      mail.ptit.com.
mail.ptit.com.  IN      A      192.168.200.4

```

Chỉnh sửa file: chỉnh sửa `/etc/bind/ptit.com.rv`

- `nano /etc/bind/ptit.com.rv`

```

;
; BIND reverse data file for local loopback interface
;
$TTL 604800
@ IN SOA mail.ptit.com. root.ptit.com. (
    1 ; Serial
    604800 ; Refresh
    86400 ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;
@ IN NS mail.
4 IN PTR mail.ptit.com.

```

```

GNU nano 4.8
;
; BIND reverse data file for local loopback interface
;
; BIND reverse data file for local loopback interface
;
$TTL 604800
@ IN SOA mail.ptit.com. root.ptit.com. (
    1 ; Serial
    604800 ; Refresh
    86400 ; Retry
    2419200 ; Expire
    604800 ) ; Negative Cache TTL
;
@ IN NS mail.
4 IN PTR mail.ptit.com.

```

Kiểm tra lại xem tệp vùng hoạt động có chính xác không:

- `named-checkzone ptit.com /etc/bind/ptit.com.fw`
- `named-checkzone ptit.com /etc/bind/ptit.com.rv`

```

root@mailserverconfig:/home/ubuntu# nano /etc/bind/ptit.com.rv
root@mailserverconfig:/home/ubuntu# named-checkzone ptit.com /etc/bind/ptit.com.fw
zone ptit.com/IN: loaded serial 2
OK
root@mailserverconfig:/home/ubuntu# named-checkzone ptit.com /etc/bind/ptit.com.rv
zone ptit.com/IN: loaded serial 1
OK
root@mailserverconfig:/home/ubuntu#

```

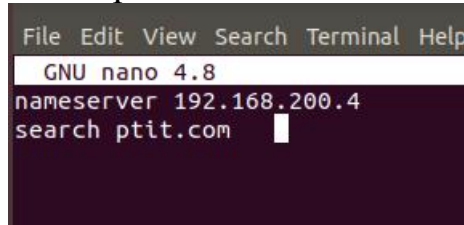
Chỉnh sửa file :

- nano /etc/resolv.conf

Thêm như trong hình:

nameserver 192.168.200.4

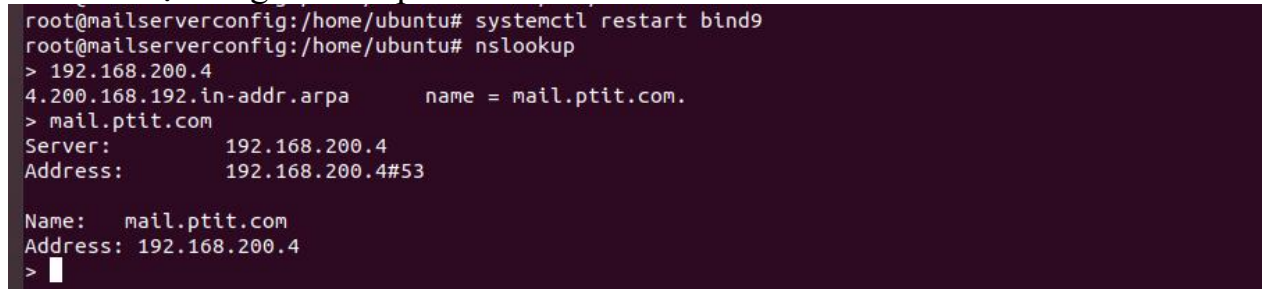
search ptit.com

A screenshot of the nano text editor interface. The title bar shows 'File Edit View Search Terminal Help'. The status bar at the bottom indicates 'GNU nano 4.8'. The main text area contains the lines 'nameserver 192.168.200.4' and 'search ptit.com' with a cursor at the end of the second line.

Thực hiện restart bind9

- systemctl restart bind9

Kiểm tra lại bằng nslookup

A terminal window screenshot showing the execution of two commands. First, 'systemctl restart bind9' is run, returning to the prompt. Then, 'nslookup' is run, followed by several prompts: '> 192.168.200.4' returns '4.200.168.192.in-addr.arpa name = mail.ptit.com.', '> mail.ptit.com' returns 'Server: 192.168.200.4' and 'Address: 192.168.200.4#53'. Finally, 'Name: mail.ptit.com' returns 'Address: 192.168.200.4'.

Dns server IP: **192.168.200.4**

- Hostname: **mail.ptit.com**

Thực hiện tuần tự các câu lệnh sau:

- a2enmod rewrite expires ; sed -i "s;/date.timezone.*/date.timezone = Asia\\Kolkata/" /etc/php/*/apache2/php.ini
- systemctl start apache2 mariadb ;
- systemctl enable apache2 mariadb ;
- unzip squirrelmail-webmail-1.4.22.zip
- mv squirrelmail-webmail-1.4.22 /var/www/html/
- mv /var/www/html/squirrelmail-webmail-1.4.22/ /var/www/html/squirrelmail
- perl /var/www/html/squirrelmail/config/conf.pl

```
File Edit View Search Terminal Help
SquirrelMail Configuration : Read: config_default.php (1.4.0)
-----
Server Settings

General
-----
1. Domain                : example.com
2. Invert Time            : false
3. Sendmail or SMTP      : SMTP

A. Update IMAP Settings  : localhost:143 (other)
B. Update SMTP Settings  : localhost:25

R  Return to Main Menu
C  Turn color on
S  Save data
Q  Quit

Command >> 1

The domain name is the suffix at the end of all email addresses. If
for example, your email address is jdoe@example.com, then your domain
would be example.com.

[example.com]: mail.ptit.com
```

Tại màn hình ta bấm ‘2 ‘
Sau đó bấm ‘1 ‘rồi nhập “mail.ptit.com”

Quay lại màn hình bằng ‘r’
Sau đó bấm ‘4’
Và ‘11’ để chỉnh về true;
Bấm ‘s’ để save rồi ‘q’ để thoát


```
File Edit View Search Terminal Help
SquirrelMail Configuration : Read: config_default.php (1.4.0)
-----
General Options
1. Data Directory           : /var/local/squirrelmail/data/
2. Attachment Directory    : /var/local/squirrelmail/attach/
3. Directory Hash Level    : 0
4. Default Left Size       : 150
5. Usernames in Lowercase  : false
6. Allow use of priority    : true
7. Hide SM attributions    : false
8. Allow use of receipts   : true
9. Allow editing of identity : true
   Allow editing of name   : true
   Remove username from header : false
10. Allow server thread sort : false
11. Allow server-side sorting : true
12. Allow server charset search : true
13. Enable UID support     : true
14. PHP session name       : SQMSESSID
15. Location base          :
16. Only secure cookies if poss. : true
17. Disable secure forms   : false
18. Page referral requirement :

R  Return to Main Menu
C  Turn color on
S  Save data
Q  Quit

Command >> s
```

- `chown -R www-data:www-data /var/www/html/ ; chmod -R 777 /var/www/html/`
- `nano /etc/apache2/sites-available/mail.ptit.conf`
Thêm nội dung sau vào file mail.ptit.conf.

```
<VirtualHost *:80>
ServerAdmin admin@mail.ptit.com
DocumentRoot /var/www/html/squirrelmail/
ServerName www.mail.ptit.com
<Directory /var/www/html/squirrelmail/>
Options FollowSymLinks
AllowOverride All
Order allow,deny
allow from all
</Directory>
ErrorLog /var/log/apache2/mail.ptit.com-error_log
CustomLog /var/log/apache2/mail.ptit.com-access_log common
```

</VirtualHost>

```
root@mailserverconfig: /home/ubuntu
File Edit View Search Terminal Help
GNU nano 4.8 /etc/apache2/sites-available/mail.ptit.conf
<VirtualHost *:80>
ServerAdmin admin@mail.ptit.com
DocumentRoot /var/www/html/squirrelmail/
ServerName www.mail.ptit.com
<Directory /var/www/html/squirrelmail/>
Options FollowSymLinks
AllowOverride All
Order allow,deny
allow from all
</Directory>
ErrorLog /var/log/apache2/mail.ptit.com-error_log
CustomLog /var/log/apache2/mail.ptit.com-access_log common
</VirtualHost>
```

- a2ensite mail.ptit.conf ; a2dissite 000-default.conf ; apache2ctl configtest ;
echo "192.168.200.4 www.mail.ptit.com" >> /etc/hosts ; systemctl reload
apache2 postfix dovecot

- mkdir -p /var/local/squirrelmail/data/ ; chmod -R 777
/var/local/squirrelmail/data

Tạo user1 và user2:

- useradd user2
- passwd user2
- mkdir /var/www/html/user2 ; usermod -m -d /var/www/html/user2 user2 ;
chown -R user2:user2 /var/www/html/user2

- useradd user1
- passwd user1
- mkdir /var/www/html/user1 ; usermod -m -d /var/www/html/user1 user1 ;
chown -R user1:user1 /var/www/html/user1

Thực hiện cấu hình chính thức cho squirrelmail

- mv /var/www/html/squirrelmail/config/config_default.php config.php

Truy cập mail.ptit.com bằng firefox ngoài terminal.

Đăng nhập vào squirrelmail và Gửi mail (chọn compose)

Sau khi gửi ta có thể hiểu được cách cấu hình cho squirrelmail.

```
student@ubuntu:~/labtainer/labtainer-student$ checkwork kieutienhal
Results stored in directory: /home/student/labtainer_xfer/kieutienhal
Labname kieutienhal
```

Student	DNS_config_forw	add_zone	DNS_forward	Postfix_config	Dovecot_config	Squirrelmail_co	send_email
b19dcat055	Y	Y	Y	Y	Y	Y	Y

What is automatically assessed for this lab: