

Dokumentasi Instalasi DNS Server, Web Server, FTP Server, Mail Server dan Proxy Server Menggunakan Operating System Ubuntu Server 18.04



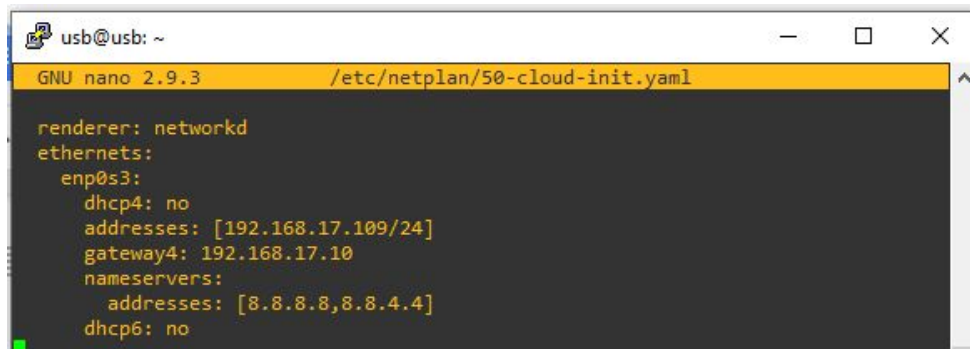
Disusun oleh :

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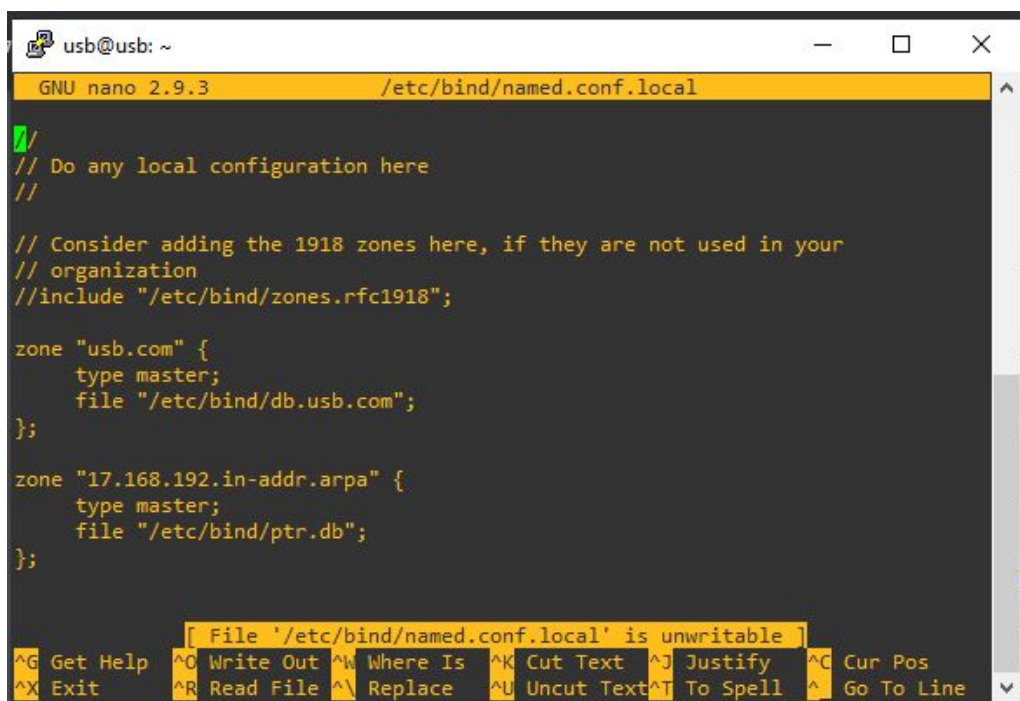
A. Instalasi DNS Server

1. masuk ke root dengan perintah `sudo su`
2. update ubuntu `apt update`
3. setting ip dhcp ke ip statik `nano /etc/netplan/50-cloud-init.yaml`



```
usb@usb: ~  
GNU nano 2.9.3 /etc/netplan/50-cloud-init.yaml  
  
renderer: networkd  
ethernets:  
  enp0s3:  
    dhcp4: no  
    addresses: [192.168.17.109/24]  
    gateway4: 192.168.17.10  
    nameservers:  
      addresses: [8.8.8.8,8.8.4.4]  
    dhcp6: no
```

4. save netplan `apply`
5. install bind `apt install bind9`
6. konfigurasi bind
 - edit zone `nano /etc/bind/named.conf.local`

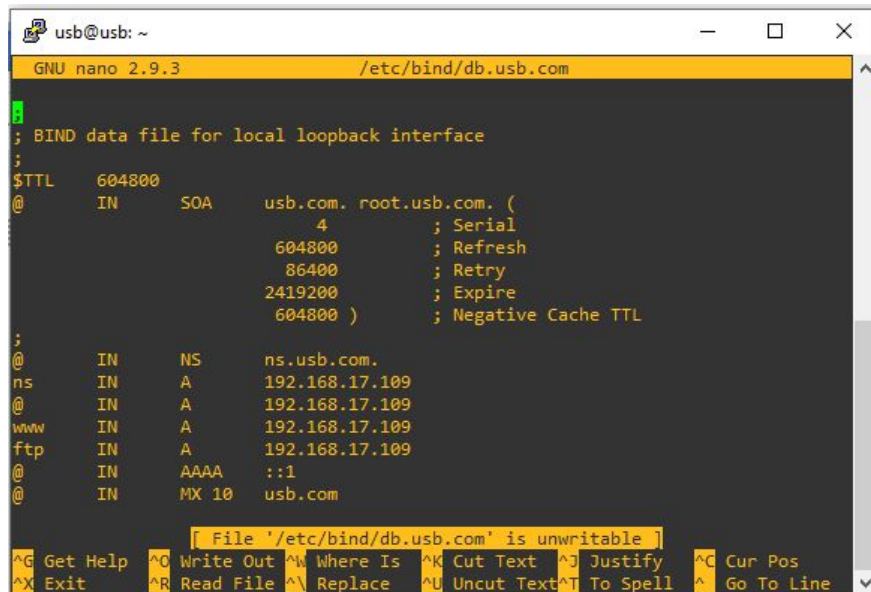


```
usb@usb: ~  
GNU nano 2.9.3 /etc/bind/named.conf.local  
  
//  
// Do any local configuration here  
//  
  
// Consider adding the 1918 zones here, if they are not used in your  
// organization  
//include "/etc/bind/zones.rfc1918";  
  
zone "usb.com" {  
    type master;  
    file "/etc/bind/db.usb.com";  
};  
  
zone "17.168.192.in-addr.arpa" {  
    type master;  
    file "/etc/bind/ptr.db";  
};  
  
[ File '/etc/bind/named.conf.local' is unwritable ]  
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos  
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Spell  ^_ Go To Line
```

7. membuat informasi domain usb.com

- copykan file db.local

cp /etc/bind/db.local/etc/bind/db.usb.com dan edit nano
/etc/bind/db.usb.com

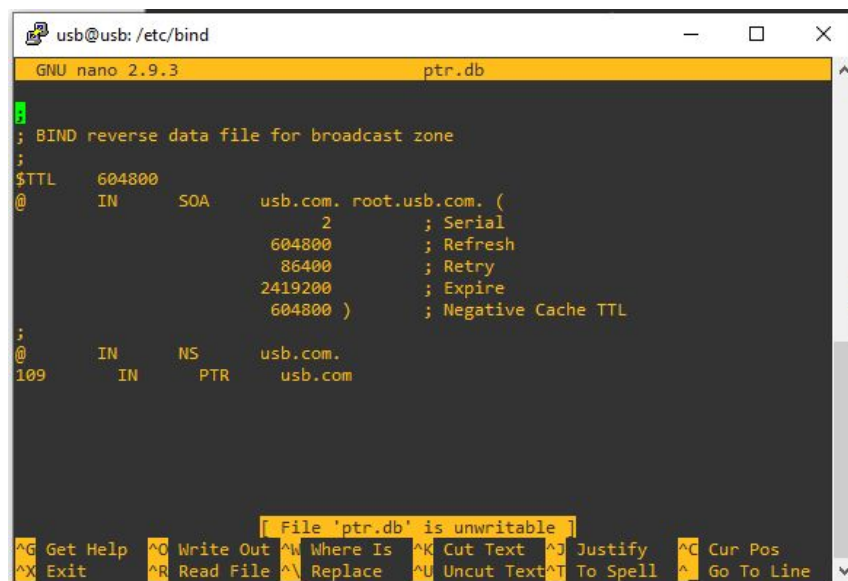


```
usb@usb: ~  
GNU nano 2.9.3 /etc/bind/db.usb.com  
;  
; BIND data file for local loopback interface  
;  
$TTL      604800  
@         IN      SOA      usb.com. root.usb.com. (  
          4          ; Serial  
          604800     ; Refresh  
          86400     ; Retry  
          2419200    ; Expire  
          604800 )    ; Negative Cache TTL  
;  
@         IN      NS       ns.usb.com.  
ns        IN      A        192.168.17.109  
@         IN      A        192.168.17.109  
www       IN      A        192.168.17.109  
ftp       IN      A        192.168.17.109  
@         IN      AAAA     ::1  
@         IN      MX       10  usb.com  
[ File '/etc/bind/db.usb.com' is unwritable ]  
^G Get Help  ^O Write Out ^M Where Is ^K Cut Text ^J Justify ^C Cur Pos  
^X Exit      ^R Read File ^\ Replace  ^U Uncut Text ^T To Spell ^_ Go To Line
```

- Copy dan rename file db.255 menjadi ptr.db

cp /etc/bind/db.255 /etc/bind/ptr.db

dan edit nano /etc/bind/ptr.db

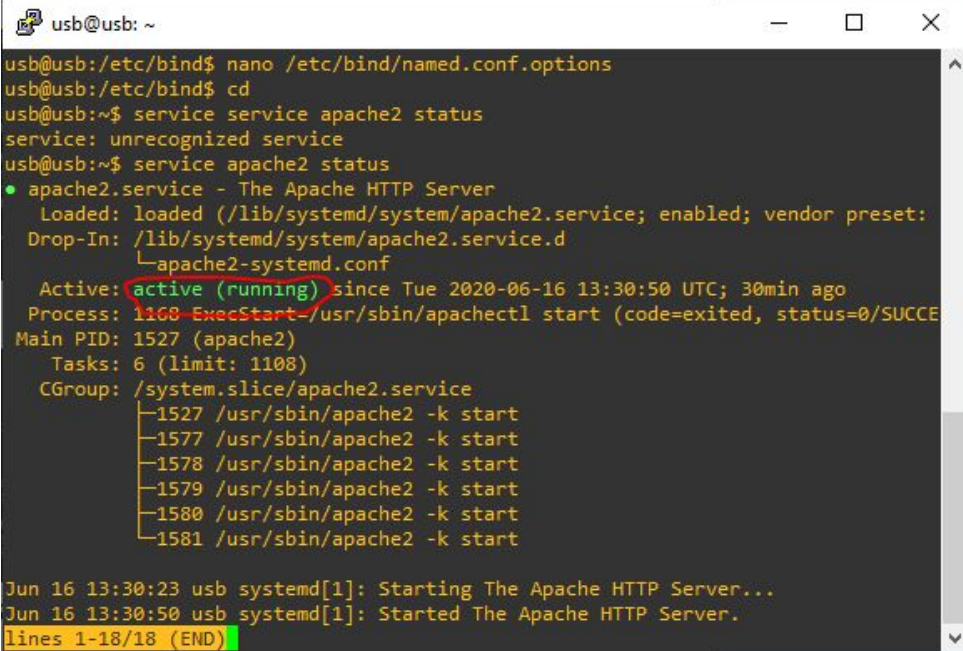


```
usb@usb: /etc/bind  
GNU nano 2.9.3 ptr.db  
;  
; BIND reverse data file for broadcast zone  
;  
$TTL      604800  
@         IN      SOA      usb.com. root.usb.com. (  
          2          ; Serial  
          604800     ; Refresh  
          86400     ; Retry  
          2419200    ; Expire  
          604800 )    ; Negative Cache TTL  
;  
@         IN      NS       usb.com.  
109      IN      PTR      usb.com  
[ File 'ptr.db' is unwritable ]  
^G Get Help  ^O Write Out ^M Where Is ^K Cut Text ^J Justify ^C Cur Pos  
^X Exit      ^R Read File ^\ Replace  ^U Uncut Text ^T To Spell ^_ Go To Line
```

8. Service restart service bind9 restart

B. Instalasi Web Server

1. Instalasi Apache2 apt install apache2 dan cek statusnya
service apache2 status



```
usb@usb: ~  
usb@usb:/etc/bind$ nano /etc/bind/named.conf.options  
usb@usb:/etc/bind$ cd  
usb@usb:~$ service service apache2 status  
service: unrecognized service  
usb@usb:~$ service apache2 status  
● apache2.service - The Apache HTTP Server  
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset:   
   Drop-In: /lib/systemd/system/apache2.service.d  
            └─apache2-systemd.conf  
   Active: active (running) since Tue 2020-06-16 13:30:50 UTC; 30min ago  
   Process: 1168 ExecStart /usr/sbin/apachectl start (code=exited, status=0/SUCCE  
   Main PID: 1527 (apache2)  
   Tasks: 6 (limit: 1108)  
   CGroup: /system.slice/apache2.service  
           └─1527 /usr/sbin/apache2 -k start  
             └─1577 /usr/sbin/apache2 -k start  
               └─1578 /usr/sbin/apache2 -k start  
                 └─1579 /usr/sbin/apache2 -k start  
                   └─1580 /usr/sbin/apache2 -k start  
                     └─1581 /usr/sbin/apache2 -k start  
  
Jun 16 13:30:23 usb systemd[1]: Starting The Apache HTTP Server...  
Jun 16 13:30:50 usb systemd[1]: Started The Apache HTTP Server.  
lines 1-18/18 (END)
```

2. install php apt-get install php libapache2-mod-php php-mysql
3. install mysql apt install mysql-server
4. Konfigurasi Apache2
 - copy dan rename file 000-default.conf
cp /etc/apache2/sites-available/000-default.conf
/etc/apache2/sites-available/usb.conf
 - edit usb.conf nano /etc/apache2/sites-available/usb.conf

```

root@usb: ~
GNU nano 2.9.3 /etc/apache2/sites-available/usb.conf

VirtualHost 192.168.17.109:80>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
#ServerName www.example.com
ServerName usb.com
ServerAdmin webmaster@usb.com
DocumentRoot /var/www/usb

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

[ Read 31 lines ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace  ^U Uncut Text ^T To Spell  ^_ Go To Line

```

- edit nano /var/www/usb/index.html dan buat file html sebagai tampilan webnya

```

usb@usb: ~
GNU nano 2.9.3

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>usb.com</title>
  <style type="text/css">
    *{
      margin: 0;
      padding: 0;
      box-sizing: border-box;
    }
    body{
      min-height: 100vh;
      background: #e0e5ec;
      display: flex;
      align-items: center;
      justify-content: center;
    }
    h4{
      padding: 10px;
      text-transform: uppercase;
      text-align: center;
      font-size: 1rem;
      font-weight: bold;
      font-family: arial;
    }
    h5{
      text-align: center;
      color: #000000;
      font-weight: bold;
      letter-spacing: 1px;
      font-size: 1rem;
    }
    p{
      color: #696969;
      font-size: 1rem;
      font-weight: bold;
      padding: 10px 0;
      line-height: 1.5rem;
    }
    .card a{
      display: block;
      padding: 1rem;
    }
  </style>
</head>
<body>

  <div class="container">
    <div class="card">
      <div class="imgBox"></div>
      <h4>Riyo Santo</h4>
      <h5>171402020</h5>
    </div>

    <div class="card">
      <div class="imgBox"></div>
      <h4>Syarifan</h4>
      <h5>171402050</h5>
    </div>

    <div class="card">
      <div class="imgBox"></div>
      <h4>Frans</h4>
      <h5>171402059</h5>
    </div>

    <div class="card">
      <div class="imgBox"></div>
      <h4>Rico</h4>
      <h5>171402062</h5>
    </div>

    <div class="card">
      <div class="imgBox"></div>
      <h4>Alfiray</h4>
      <h5>171402107</h5>
    </div>
  </div>
</body>

```

5. Aktifkan webserver usb.com a2ensite usb.conf
6. Restart apache service apache2 restart

C. Instalasi FTP Server

1. download vsftpd apt install vsftpd
2. cek status vsftpd systemctl status vsftpd

```
usb@usb:~$ systemctl status vsftpd
● vsftpd.service - vsftpd FTP server
   Loaded: loaded (/lib/systemd/system/vsftpd.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2020-06-16 13:30:20 UTC; 48min ago
     Process: 1080 ExecStartPre=/bin/mkdir -p /var/run/vsftpd/empty (code=exited, status=0/SUCCESS)
    Main PID: 1086 (vsftpd)
      Tasks: 1 (limit: 1108)
     CGroup: /system.slice/vsftpd.service
            └─1086 /usr/sbin/vsftpd /etc/vsftpd.conf

Jun 16 13:30:20 usb systemd[1]: Starting vsftpd FTP server...
Jun 16 13:30:20 usb systemd[1]: Started vsftpd FTP server.
```

3. tambah user adduser usb
4. membuat folder mkdir /home/usb/ftp
5. restart vsftpd systemctl restart vsftpd

D. Instalasi Mail Server

1. Install Postfix Mail Server apt-get install postfix
2. restart postfix service postfix restart
3. Install Dovecot apt-get install dovecot-imapd dovecot-pop3d
4. restart dovecot service dovecot restart
5. Install SquirrelMail
wget https://sourceforge.net/projects/squirrelmail/files/stable/1.4.22/squirrelmail-webmail-1.4.22.zip
6. unzip unzip squirrelmail-webmail-1.4.22.zip
7. pindah ke folder html
mv squirrelmail-webmail-1.4.22 /var/www/html/
8. pindahkan dan rename agar namanya tidak terlalu panjang
mv /var/www/html/squirrelmail-webmail-1.4.22/
/var/www/html/squirrelmail
9. konfigurasi squirrelmail
perl /var/www/html/squirrelmail/config/conf.pl

```
usb@usb: ~  
SquirrelMail Configuration : Read: config.php (1.4.0)  
-----  
Main Menu --  
1. Organization Preferences  
2. Server Settings  
3. Folder Defaults  
4. General Options  
5. Themes  
6. Address Books  
7. Message of the Day (MOTD)  
8. Plugins  
9. Database  
10. Languages  
  
D. Set pre-defined settings for specific IMAP servers  
  
C Turn color on  
S Save data  
Q Quit  
  
Command >> █
```

- ketik 2 kemudian ketik 1 dan atur nama domainnya

```
usb@usb: ~  
SquirrelMail Configuration : Read: config.php (1.4.0)  
-----  
Server Settings  
  
General  
-----  
1. Domain : usb.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 >> █
```

- kembali dengan mengetikkan r dan kemudian setting nomor 1 dan 2 dengan alamat dimana kita meletakkan squirrelmail tadi

usb@usb: ~

SquirrelMail Configuration : Read: config.php (1.4.0)

General Options

1. Data Directory	: /var/www/usb/squirrelmail/data/
2. Attachment Directory	: /var/www/usb/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 >> █

- tekan s dan ketik 11 kemudian atur dari false menjadi true

usb@usb: ~

```
SquirrelMail Configuration : Read: config.php (1.4.0)
-----
General Options
1. Data Directory           : /var/www/usb/squirrelmail/data/
2. Attachment Directory    : /var/www/usb/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 >> █
```

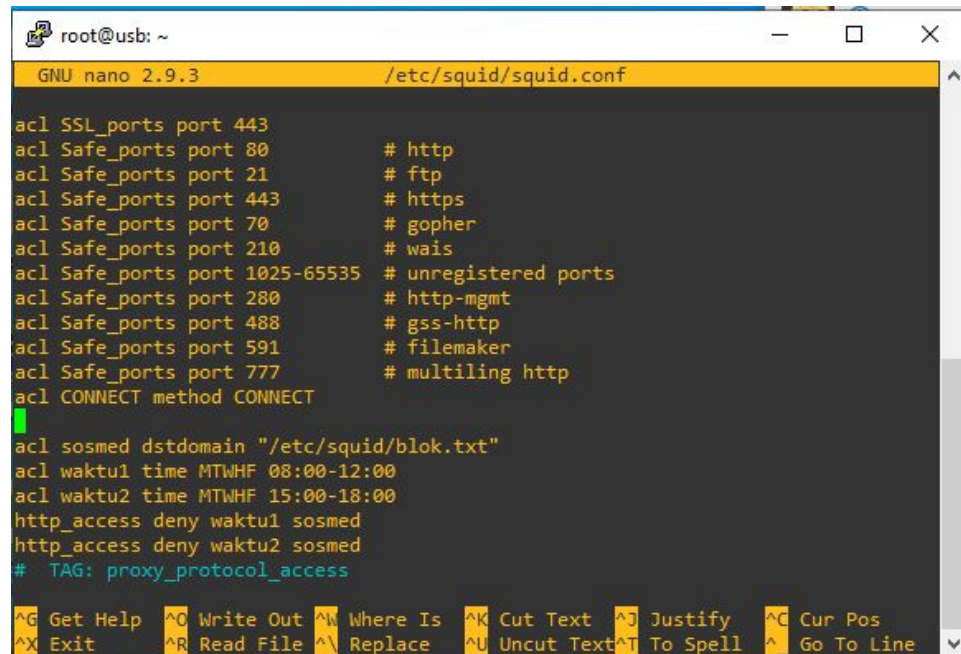
dan terakhir tekan s untuk simpan kemudian tekan q untuk keluar

10. membuat user mail

- useradd usb
- passwd usb
- mkdir -p /var/www/html/usb
- chown -R usb:usb /var/www/html/usb

E. Instalasi Proxy Server

1. install squid `apt-get install squid`
2. konfigurasi squid `nano /etc/squid/squid.conf`



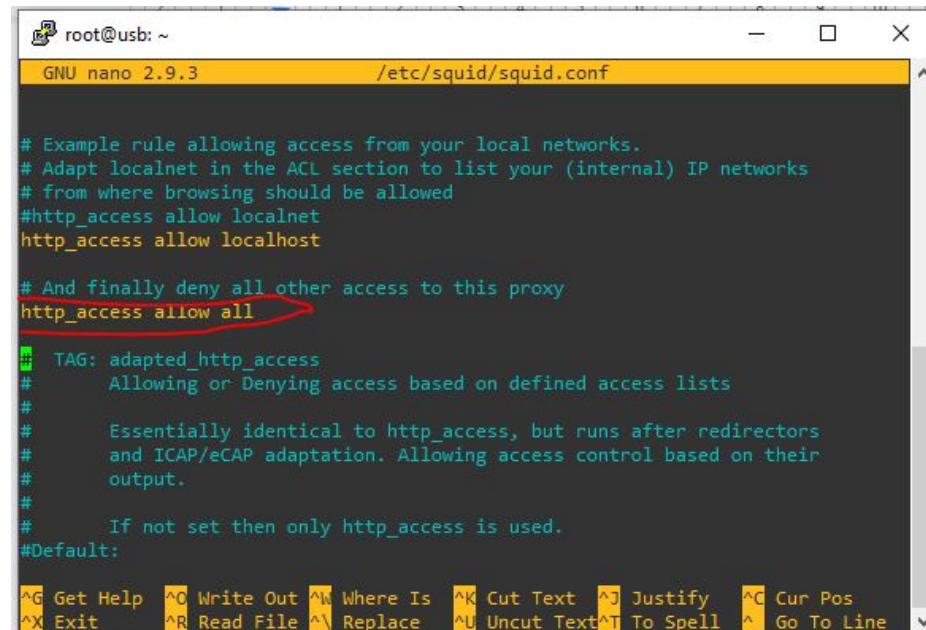
```
root@usb: ~
GNU nano 2.9.3 /etc/squid/squid.conf

acl SSL_ports port 443
acl Safe_ports port 80      # http
acl Safe_ports port 21      # ftp
acl Safe_ports port 443     # https
acl Safe_ports port 70      # gopher
acl Safe_ports port 210     # wais
acl Safe_ports port 1025-65535 # unregistered ports
acl Safe_ports port 280     # http-mgmt
acl Safe_ports port 488     # gss-http
acl Safe_ports port 591     # filemaker
acl Safe_ports port 777     # multiling http
acl CONNECT method CONNECT

acl sosmed dstdomain "/etc/squid/blok.txt"
acl waktu1 time MTWHF 08:00-12:00
acl waktu2 time MTWHF 15:00-18:00
http_access deny waktu1 sosmed
http_access deny waktu2 sosmed
# TAG: proxy_protocol_access

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Spell ^_ Go To Line
```

lalu ubah kata `http_access deny all` menjadi `http_access allow all`



```
root@usb: ~
GNU nano 2.9.3 /etc/squid/squid.conf

# Example rule allowing access from your local networks.
# Adapt localnet in the ACL section to list your (internal) IP networks
# from where browsing should be allowed
#http_access allow localnet
http_access allow localhost

# And finally deny all other access to this proxy
http_access allow all

TAG: adapted_http_access
#
#   Allowing or Denying access based on defined access lists
#
#   Essentially identical to http_access, but runs after redirectors
#   and ICAP/eCAP adaptation. Allowing access control based on their
#   output.
#
#   If not set then only http_access is used.
#Default:

^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text ^T To Spell ^_ Go To Line
```

3. restart squid `systemctl restart squid`

4. setting di proxy komputer dengan menambahkan ip address server

