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Install vSFTPD Sebagai FTP Server dengan Virtual Account di Debian 8 (Jessie)

Oleh: Imran Nababan

For this tutorial, im using vim as my text editor, you can use nano or another text editor (depend what you are prefer or familiar with you). For server IP address, for this tutorial example im using my server private IP Address as 192.168.10.110, you can use your server public IP or host. 1. Install ...

For this tutorial, im using **vim** as my text editor, you can use nano or another text editor (depend what you are prefer or familiar with you).

For server IP address, for this tutorial example im using my server private IP Address as **192.168.10.110**, you can use your server public IP or host.

1. Install Required Package

```
apt-get install libpam-pwdfile
apt-get install apache2-utils
apt-get install db-util
apt-get install openssl
apt-get install vsftpd
```

2. Create TLS (SSL Certificate) for TLS Connection

```
openssl req -x509 -nodes -days 720 -newkey rsa:1024 -keyout /etc/ssl/private/vsftpd.pem
-out /etc/ssl/private/vsftpd.pem
```

Change red-colod depend on your country, company name, email and your company email.

Country Name (2 letter code) [AU]:**ID**

State or Province Name (full name) [Some-State]:**DKI Jakarta**

Locality Name (eg, city) []:**Jakarta Barat**

Organization Name (eg, company) [Internet Widgits Pty Ltd]:**True Digital Plus**

Organizational Unit Name (eg, section) []:**GSM**

Common Name (e.g. server FQDN or YOUR name) []:**ftp.truedigitalplus.id**

Email Address []:**gsm@truedigitalplus.com**

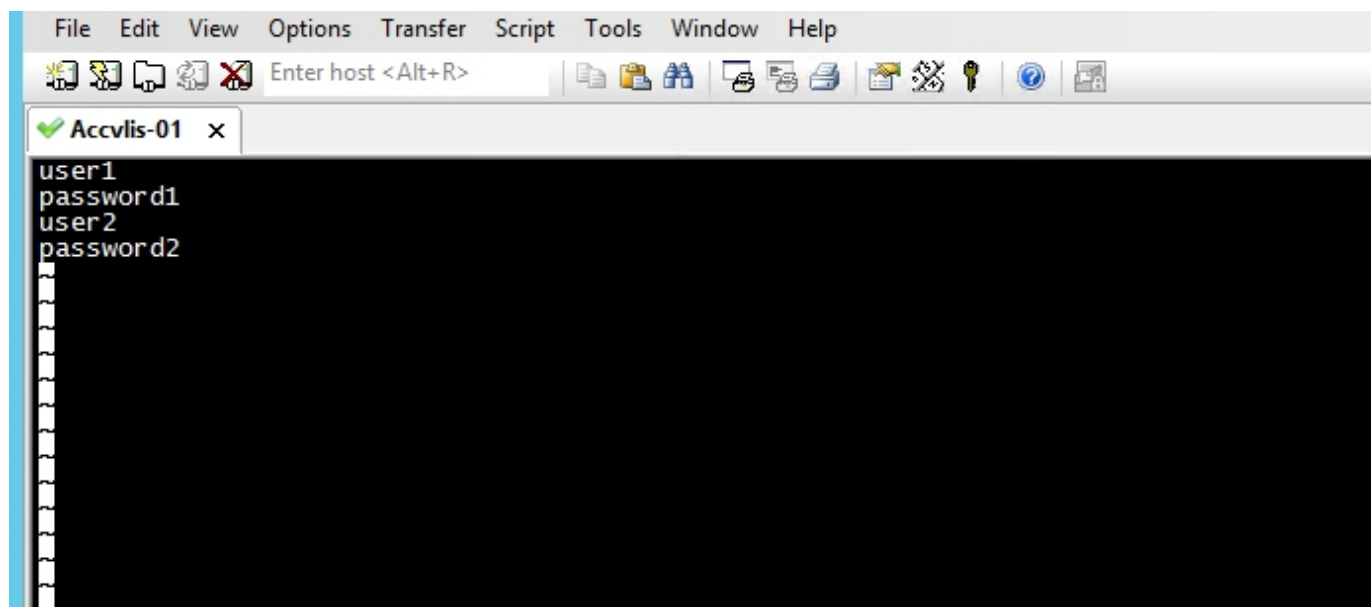
```
Processing triggers for systemd (235-1-fae5b94) ...
root@ftp:~# openssl req -x509 -nodes -days 720 -newkey rsa:1024 -keyout /etc/ssl/private/vsftpd.pem -out /etc/ssl/private/vsftpd.pem
Generating a 1024 bit RSA private key
.....+++++
.....+++++
writing new private key to '/etc/ssl/private/vsftpd.pem'
-----
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [AU]:ID
State or Province Name (full name) [Some-State]:DKI Jakarta
Locality Name (eg, city) []:Jakarta Barat
Organization Name (eg, company) [Internet Widgits Pty Ltd]:True Digital Plus
Organizational Unit Name (eg, section) []:GSM
Common Name (e.g. server FQDN or YOUR name) []:ftp.truedigitalplus.id
Email Address []:imran_nab@truedigitalplus.com
root@ftp:~#
```

3. Create configuration directory and files for FTP user database

```
mkdir /etc/vsftpd/
vim /etc/vsftpd/ftp_users.txt
```

User database text should be delimited by “\n”. First line as username and second line is password, following by another users. Example for ftp_user.txt

```
user1
password1
user2
password2
```

A screenshot of a terminal window titled 'Accvllis-01'. The terminal displays the contents of the file /etc/vsftpd/ftp_users.txt, which contains the following text: user1, password1, user2, password2. The terminal window has a menu bar with 'File', 'Edit', 'View', 'Options', 'Transfer', 'Script', 'Tools', 'Window', and 'Help'. Below the menu bar is a toolbar with various icons. The terminal output shows the file's content line by line.

4. Create database for Virtual Users

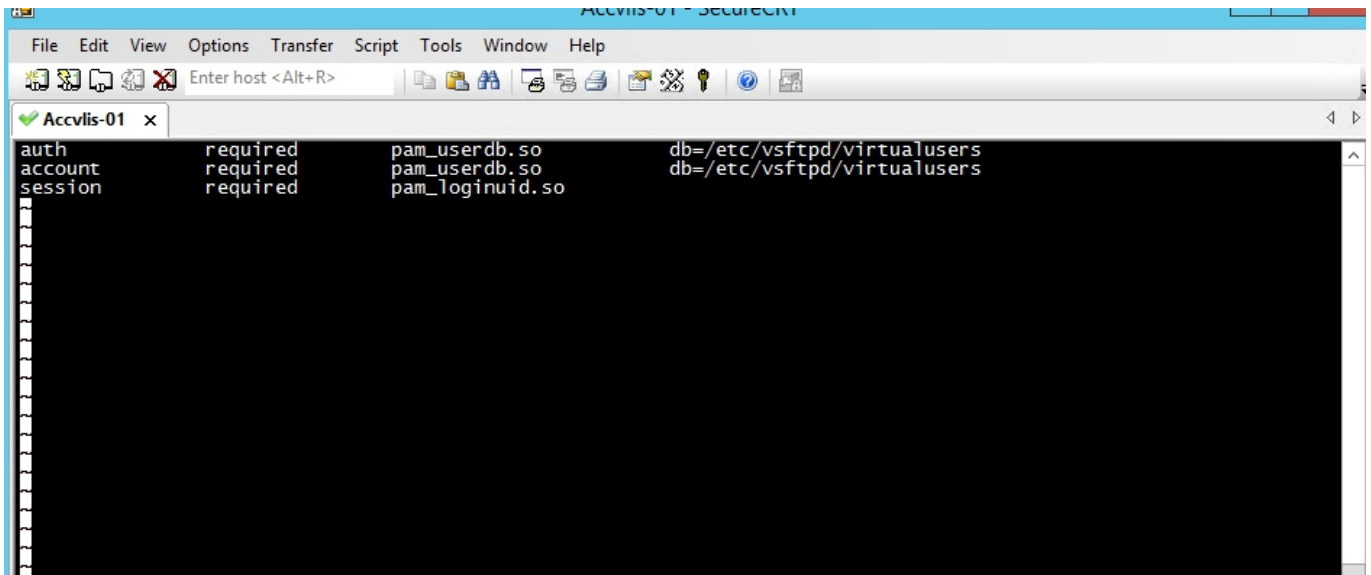
```
db_load -T -t hash -f /etc/vsftpd/ftp_users.txt /etc/vsftpd/virtualusers.db
```

```
"/etc/vsftpd/ftp_users.txt" [New] 8L, 84C written
root@ftp:~# db_load -T -t hash -f /etc/vsftpd/ftp_users.txt /etc/vsftpd/virtualusers.db
root@ftp:~#
```

5. Create or Change PAM for vsftpd.virtual

```
vim /etc/pam.d/vsftpd.virtual
```

```
##%PAM-1.0
auth      required      pam_userdb.so          db=/etc/vsftpd/virtualusers
account   required      pam_userdb.so          db=/etc/vsftpd/virtualusers
session   required      pam_loginuid.so
```

A screenshot of a terminal window titled "Accvils-01 - SecureCRT". The window shows the contents of the file /etc/pam.d/vsftpd.virtual. The text in the terminal matches the code block above, showing the PAM configuration for authentication, account, and session management for vsftpd.virtual users. The terminal has a black background with white text. The window title bar includes a menu with options like File, Edit, View, Options, Transfer, Script, Tools, Window, and Help. There is also a toolbar with various icons and a status bar at the bottom.

6. Remove or backup original vsFTPd config and create new config

```
mv /etc/vsftpd.conf /etc/vsftpd/vsftpd.conf-original
vim /etc/vsftpd.conf
```

```
File Edit View Options Transfer Script Tools Window Help
Enter host <Alt+R>
Accvllis-01 x
root@ftp:/# mv /etc/vsftpd.conf /etc/vsftpd/vsftpd.original
root@ftp:/# vim /etc/vsftpd.conf
ssl_sslv2=YES
ssl_sslv3=YES
require_ssl_reuse=NO
ssl_ciphers=HIGH
rsa_cert_file=/etc/ssl/private/vsftpd.pem
#rsa_cert_file=/etc/ssl/private/vsftpd.crt
#rsa_private_key_file=/etc/ssl/private/vsftpd.key
allow_writeable_chroot=YES
#
#userlist_file=/etc/vsftpd.denied_users
#userlist_file=/etc/vsftpd.allowed_users
#userlist_deny=YES
#userlist_enable=YES
guest_enable=YES
user_sub_token=$USER
local_root=/home/ftproot/$USER
chroot_local_user=YES
hide_ids=YES
# UTF-8 Charset
utf8_filesystem=YES
#pasv_promiscuous=YES
#### Passive Mode
tcp_wrapper=YES

listen=YES
#listen_ipv6=YES
anonymous_enable=NO
local_enable=YES
virtual_use_local_privs=YES
write_enable=YES
local_umask=022
#anon_upload_enable=YES
#anon_mkdir_write_enable=YES
dirmessage_enable=YES
use_localtime=YES
xferlog_enable=YES
connect_from_port_20=YES
#chown_uploads=YES
#chown_username=whoever
xferlog_file=/var/log/vsftpd-xferlog.log
#xferlog_std_format=YES
#idle_session_timeout=600
#data_connection_timeout=120
#nopriv_user=ftpsecure
#async_abor_enable=YES
#ascii_upload_enable=YES
#ascii_download_enable=YES
ftpd_banner=Welcome to blah FTP service.
#deny_email_enable=YES
#banned_email_file=/etc/vsftpd.banned_emails
#chroot_local_user=YES
#chroot_local_user=YES
#chroot_list_enable=NO
# (default follows)
#
```

Ready

ssh2: AFS-256-CTR | 24 20 | 25 Rows 114 Cols | VT100

```
listen=YES
#listen_ipv6=YES
anonymous_enable=NO
local_enable=YES
virtual_use_local_privs=YES
write_enable=YES
local_umask=022
#anon_upload_enable=YES
#anon_mkdir_write_enable=YES
dirmessage_enable=YES
use_localtime=YES
xferlog_enable=YES
connect_from_port_20=YES
#chown_uploads=YES
#chown_username=whoever
xferlog_file=/var/log/vsftpd-xferlog.log
#xferlog_std_format=YES
#idle_session_timeout=600
#data_connection_timeout=120
#nopriv_user=ftpsecure
#async_abor_enable=YES
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ftpd_banner=Welcome to blah FTP service.
#deny_email_enable=YES
#banned_email_file=/etc/vsftpd.banned_emails
#chroot_local_user=YES
#chroot_local_user=YES
#chroot_list_enable=NO
# (default follows)
#
```

```

#chroot_list_file=/etc/vsftpd.chroot_list
#
#ls_recurse_enable=YES
#
# Customization
secure_chroot_dir=/var/run/vsftpd/empty
#pam_service_name=vsftpd
pam_service_name=vsftpd.virtual
#####
#####
ssl_enable=YES
listen_port=21
allow_anon_ssl=NO
force_local_data_ssl=NO
force_local_logins_ssl=NO
ssl_tlsv1=YES
ssl_sslv2=YES
ssl_sslv3=YES
require_ssl_reuse=NO
ssl_ciphers=HIGH
rsa_cert_file=/etc/ssl/private/vsftpd.pem
#rsa_cert_file=/etc/ssl/private/vsftpd.crt
#rsa_private_key_file=/etc/ssl/private/vsftpd.key
allow_writeable_chroot=YES
#
#userlist_file=/etc/vsftpd.denied_users
#userlist_file=/etc/vsftpd.allowed_users
#userlist_deny=YES
#userlist_enable=YES
guest_enable=YES
user_sub_token=$USER
local_root=/home/ftproot/$USER
chroot_local_user=YES
hide_ids=YES
# UTF-8 Charset
utf8_filesystem=YES
#pasv_promiscuous=YES
#### Passive Mode
tcp_wrappers=YES
pasv_address=192.168.10.110
pasv_enable=YES
pasv_promiscuous=NO
port_enable=YES
port_promiscuous=NO
pasv_min_port=10000
pasv_max_port=10250

```

7. Create Directory for Each virtual users

```
mkdir /home/ftproot/
```

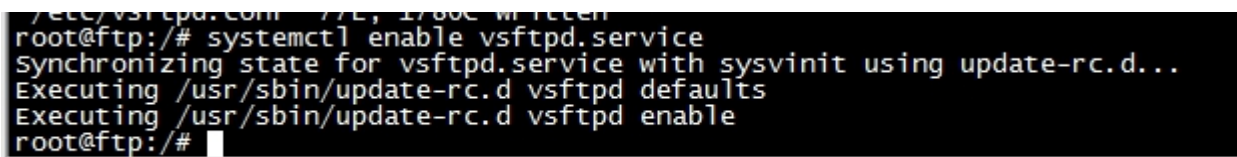
```
mkdir /home/ftp/root/user1/  
mkdir /home/ftp/root/user2/
```

8. Change owner of FTP Root directory for ftp user

```
chown -R ftp:ftp /home/ftp/root/
```

9. Enable autostart vsftpd service and Restart FTP Server

```
systemctl enable vsftpd.service  
/etc/init.d/vsftpd restart
```



```
root@ftp:~# systemctl enable vsftpd.service  
Synchronizing state for vsftpd.service with SysVinit using update-rc.d...  
Executing /usr/sbin/update-rc.d vsftpd defaults  
Executing /usr/sbin/update-rc.d vsftpd enable  
root@ftp:~#
```

Rechts

ssh2: AES-256-CTR | 25 1:

10. Do not forget to remove your virtual users db plain text

```
rm -rf /etc/vsftpd/ftp_users.txt
```

Hope all going well without any misconfiguration, thank you

If you get any popup about SSL/TLS, just accept it, because we *generate SSL Certificate locally*



The server's certificate is unknown. Please carefully examine the certificate to make sure the server can be trusted.

Details

Valid from: 2017-05-24 15:33:54
Valid to: 2019-05-14 15:33:54
Serial number: 00:9b:02:62:cd:c9:6f:c2:93
Public key algorithm: RSA with 1024 bits
Signature algorithm: RSA-SHA256
Fingerprint (SHA-256): aa:8d:75:e2:c0:2e:ae:97:6a:9e:7a:38:43:d6:00:bd:
51:75:0d:fb:4f:fd:39:2e:03:57:b0:4d:62:69:a0:0e
Fingerprint (SHA-1): 8c:cb:cb:00:62:b6:8c:38:bd:1a:f8:ea:c6:2b:79:1d:a8:77:21:d0

Subject of certificate

Common name: ftp.truedigitalplus.id
Organization: True Digital Plus
Unit: MIS
Country: ID
State or province: DKI Jakarta
Locality: Jakarta Barat
E-Mail: imran_nab@truedigitalplus.com

Certificate issuer

Common name: ftp.truedigitalplus.id
Organization: True Digital Plus
Unit: MIS
Country: ID
State or province: DKI Jakarta
Locality: Jakarta Barat
E-Mail: imran_nab@truedigitalplus.com

Session details

Host: ftp.truedigitalplus.id:21
Protocol: TLS1.2
Key exchange: RSA
Cipher: AES-256-GCM
MAC: AEAD

Trust this certificate and carry on connecting?

Always trust certificate in future sessions.

OK

Cancel

Reference: <https://help.ubuntu.com/community/vsftpd>

Tentang Penulis



Imran Nababan

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