

Setting up Linux TFTP Server for Cisco Phone Files

PART - I

In this tutorial we will see two things:

1. Setting up a TFTP Server on CentOS 6.4
2. Setting up Cisco VOIP Phones to download their config files from TFTP Server.

Plan:

Setup a TFTP Server on CentOS

Copy Cisco VOIP Phone Files to TFTP Server

Converting SCCP protocol to SIP to user with Elastix

Configuring VOIP Phones

So Lets Start:

TFTP Server on CentOS:

TFTP or Trivial File Transfer Protocol is file transfer protocol used to upload or download files by clients. It is used by number of applications but its main use is while booting or initialization of various devices. It's not secure for transferring the files over Internet.

Enough said, lets proceed.

Download the right packages for CentOS as below:

```
[root@tftp-server ~]# yum install tftp-server
```

```
[root@tftp-server ~]# yum install xinetd
```

After downloading you will find following:

```
[root@tftp-server tftpboot]# pwd
```

```
/var/lib/tftpboot [This is basically default directory of TFTP Server where you will host files]
```

Make sure to turn on both tftp-sever and xinetd on startup

```
[root@tftp-server /]# chkconfig --levels 35 tftp on
```

```
[root@tftp-server /]# chkconfig --levels 35 xinetd on
```

Configuration File can be found in `/etc/xinetd.d/tftp`

Now let's see the content of File:

```
service tftp
{
    disable          = no
    socket_type      = dgram
    protocol         = udp
    wait            = yes
    user            = root
    server          = /usr/sbin/in.tftpd
    server_args     = -u tftpd -s /var/lib/tftpboot
    per_source      = 11
    cps             = 100 2
    flags           = IPv4
}
```

In this configuration I have just changed one thing which is specifying the user which is owner of tftpboot directory and it is user tftpd

To do this we create a user and giving him permission by following commands:

```
[root@tftp-server ]# useradd tftpd
```

```
[root@tftp-server]# chown tftpd:tftpd /var/lib/tftpboot
```

We can check the ownership by ls command as follows:

```
[root@tftp-server /]# ls -ld /var/lib/tftpboot/
```

```
drwxr-xr-x. 2 tftpd tftpd 4096 Sep 11 00:34 /var/lib/tftpboot/
```

That's it now we will restart xinetd

```
[root@tftp-server /]# service xinetd restart
```

Also make sure you have allowed TFTP in IPTables

```
iptables -A INPUT --source 192.168.10.0/24 -d 192.168.5.22 -p tcp -m tcp --sport 0:0 --dport 22 -j ACCEPT
```

```
iptables -A OUTPUT --source 192.168.10.0/24 -d 192.168.5.22 -p tcp -m tcp --sport 22 --dport 0:0 -j ACCEPT
```

```
iptables -A INPUT -p udp -m udp --sport 0:0 --dport 69 -j ACCEPT
```

```
-A OUTPUT -p udp -m udp --sport 69 0 --dport 0:0 -j ACCEPT
```

Testing:

```
[root@tftp-server ~]# netstat -antlup | grep xinetd
```

```
udp    0    0 0.0.0.0:69          0.0.0.0:*          6416/xinetd
```

```
[root@tftp-server ~]# chkconfig --list | grep tftp
```

```
tftp:    on
```

We can use another Linux box and try to connect from it. Our TFTP Server's IP is 192.168.10.22

```
GenX# tftp
```

```
tftp> connect
```

```
(to) 192.168.10.22
```

```
tftp> get sal.txt
```

```
tftp>
```

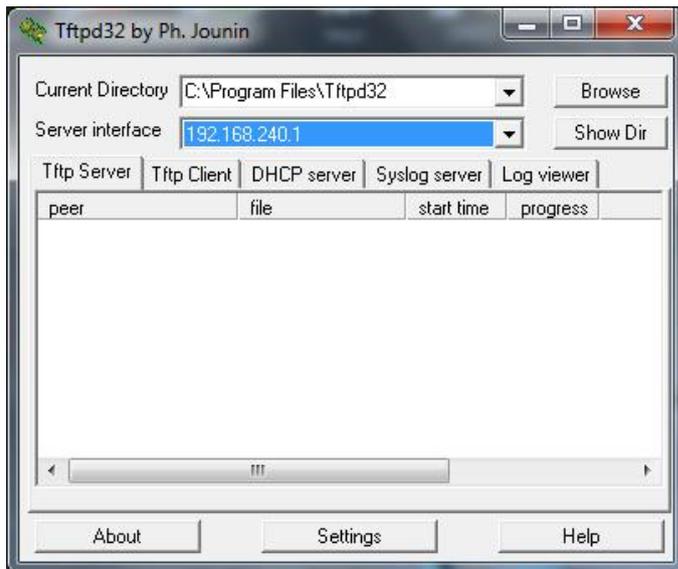
Now sal.txt should appear in the home directory of the user who initiated tftp

Please note: sal.txt is the file I place in /var/lib/tftpboot directory.

Uploading Files to TFTP Server:

We can either use TFTP Client GUI or just a CLI , and use a "put " command.

I will use tftpd32 windows client to upload Cisco SSCP Files to the TFTP Server.



Now copy your files to TFTP32 Directory and upload to TFTP Linux Server.

I hope the above step is easy but if you still find it difficult you can just google or shoot me an email.

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Once the files are copied to the TFTP Linux Directory, we will proceed to the next step.

The discussion will continue in Part II

Thanks,

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