Working With TFTP

Basics of TFTP

Simple UDP based file transfer protocol

Wikipedia:

http://en.wikipedia.org/wiki/Trivial_File_Transfer_Protocol

RFC 1350

(all of this means it's quick and dirty...)

Preparing the network on FreeBSD

On your Laptop:

Do you have a VNC Client?

Download a VNC client (if you don't have one already)

Connect to host ts01.sie.ws.afnog.org on port 59xx (Your group)

Add network configuration using GUI

Check the Address plan

Preparing the network on the router

Download a Telnet client (if you don't have one already)

Connect to host ts01.sie.ws.afnog.org on port 20xx

You will connect to the console port of a brand new Cisco router.

Configure your interfaces:

```
configure terminal
interface Gi 0/0
ip address 196.200.22x.x 255.255.25x.x
```

```
Ping your PC to test.
```

Install and configure TFTP in Ubuntu

Connect to host ts01.sie.ws.afnog.org on port 59xx

- **install tftpd-hpa**

  sudo apt-get install tftpd-hpa
- **edit the config file**

  sudo vim /etc/default/tftpd-hpa

  Edit file to:

          # /etc/default/tftpd-hpa
          TFTP_USERNAME="tftp"
          TFTP_DIRECTORY="/var/lib/tftpboot"
          TFTP_ADDRESS="0.0.0.0:69"
          TFTP_OPTIONS="-s -c -l"

- **Give read/write permissions to /var/lib/tftpboot**

  Sudo chmod 666 /var/lib/tftpboot
- sudo service tftpd-hpa restart

Using TFTP to manage your router

```
router# copy start tftp

 router# copy tftp start

 router# copy flash tftp

 router# copy tftp flash

 router# copy run tftp
```

Using TFTP to manage your router

`router# copy start tftp`

Copies your startup configuration to the tftp server. This is typically what you will use to backup your (router) saved configuration to an external tftp server.

`router# copy tftp start`

Copies your configuration from a tftp server, to your router's startup configuration.
Useful for restoring configuration from an external backup.

Using TFTP to manage your router

When would you use the following:

router# copy flash tftp

router# copy tftp flash

router# copy run tftp

Things to remember

Keep your server secure!

  Your TFTP server will typically have stored router configs and IOS images.

  Therefore it's important that you restrict access to your server.

  Setup integrity checking (even simple md5)

For large file transfers, consider using SCP/RCP for more reliable transport.