Working With TFTP

Basics of TFTP

- Simple file transfer protocol

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

- RFC 1350

Enabling TFTP in FreeBSD

Find, and uncomment the appropriate line in /etc/inted.conf
 # vi /etc/inetd.conf

Restart inetd, enabling TFTP
 # /usr/sbin/inetd &

Check that TFTP is actually running. (hint: it runs on port 69)
 # netstat –an | grep udp4

Enabling TFTP in FreeBSD

Create a directory for tftp to operate with
 # mkdir /tftpboot

If you're going to write to a config file, the file needs to exist, and you need to have write permission to it; 'touch' will create the file for you
 # touch /tftpboot/sie-config

Allow world-write permission to the file you've created
 # chmod 666 /tftpboot/sie-config

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

Directory Structure

TFTPd will use the base directory that you specified in inetd.conf. In most cases that is */tftpboot/* (hint: look at the directory you created).

When you reference this by reading/writing to tftp, you do not need to specify the base directory when asked for the destination.

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

Other Alternatives?

```
router#conf network ?
  ftp:      URL of source file
  http:     URL of source file
  https:    URL of source file
  pram:     URL of source file
  rcp:      URL of source file
  scp:      URL of source file
  tftp:     URL of source file
  <cr>
```