

Cisco forest

Switches and routers

- Cisco ASA5505
 - Firmware upgrade
 - Backup and restore configuration using Trivial File Transfer Protocol (TFTP)
 - Backup and restore configuration using Secure SHell (SSH)

Cisco ASA5505

Firmware upgrade

Login into ASA (SSH or serial port)

Provide 'enable' password

```
enable
```

Prepare files on TFTP server.

```
ping 192.168.74.128  
copy tftp: disk0:  
dir
```

Perform change of booting image

```
show version  
configure terminal  
dir  
  
show bootvar  
no boot system disk0:/asa845-k8.bin  
boot system disk0:/asa917-32-k8.bin  
  
exit  
write memory  
show run | include boot  
show bootvar  
  
reload  
  
show version
```

Backup and restore configuration using Trivial File Transfer Protocol (TFTP)

Run tftp server (pumpkin on tftpd)

Ensure tftp server is listening

```
ping 192.168.74.129
```

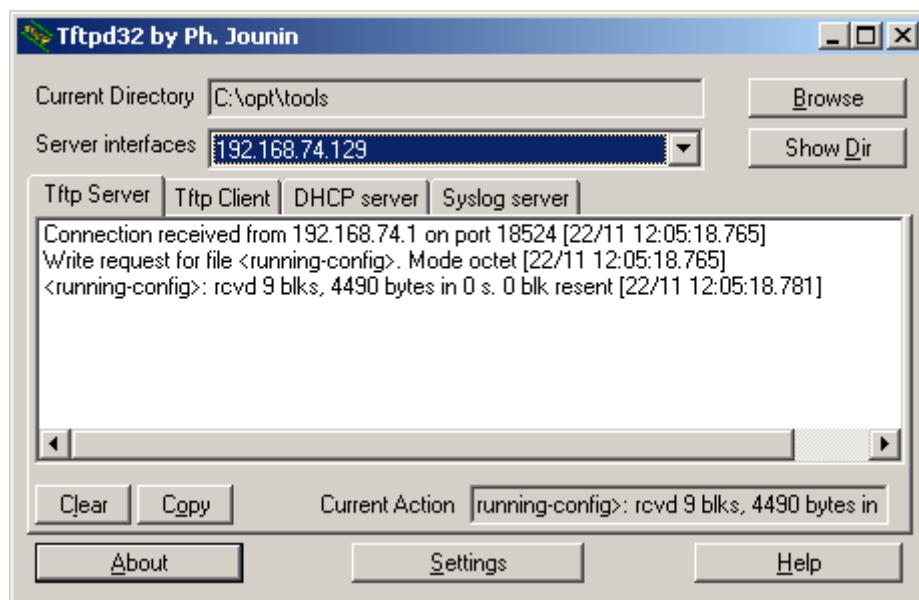
Backup (from ASA)

```
anton-w@ant1mbp7 ~ % ssh root@192.168.74.1
root@192.168.74.1's password:
Type help or '?' for a list of available commands.
ztn3fw2> en
ztn3fw2> enable
Password: *****
ztn3fw2#
ztn3fw2#
ztn3fw2#
ztn3fw2# ping 192.168.74.129
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.74.129, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
ztn3fw2#
```

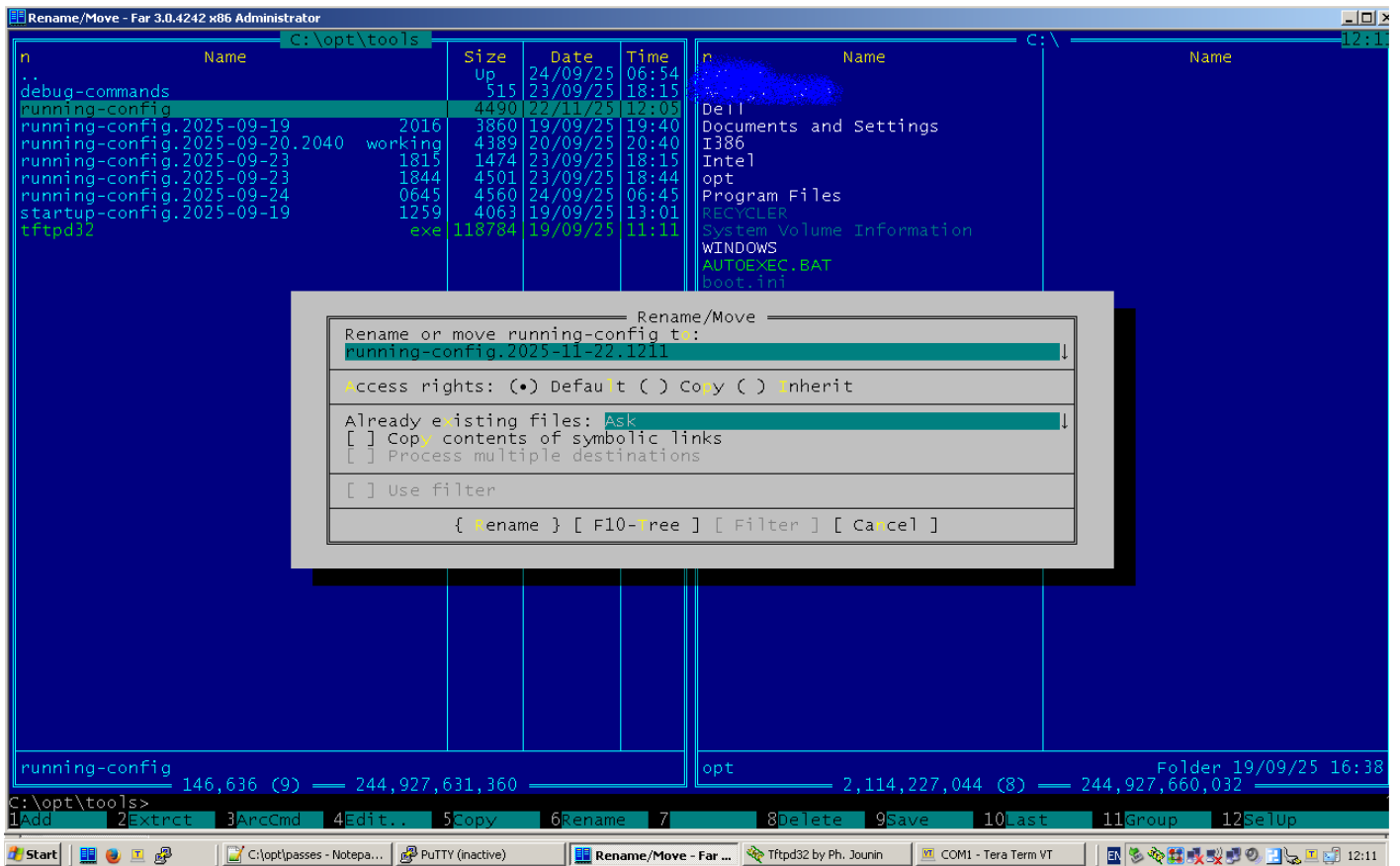
```
copy running-config tftp://192.168.74.129
```

```
ztn3fw2# copy running-config tftp:192.168.74.129
Source filename [running-config]?
Address or name of remote host []?
?Host name or address not specified
%Error parsing filename (Invalid argument)
ztn3fw2# copy running-config tftp://192.168.74.129
Source filename [running-config]?
Address or name of remote host [192.168.74.129]?
Destination filename [running-config]?
Cryptochecksum: 774f2691 301533d8 c6aa28b0 8ab66fb4
!!
4490 bytes copied in 1.120 secs (4490 bytes/sec)
ztn3fw2#
```

On the server side:



Rename config.



Restore (to ASA)

- ensure the correct name of config exists before pulling it from target.
- configuration will be applied immediately (otherwise, use 'startup-config' as a destination file)

```
copy tftp://192.168.74.129/running-config.2025-09-20.2040.working running-config
```

```
ztn3fw2# copy tftp://192.168.74.129/running-config.2025-09-20.2040.working run$
Address or name of remote host [192.168.74.129]?
Source filename [running-config.2025-09-20.2040.working]?
Destination filename [running-config]?
Accessing tftp://192.168.74.129/running-config.2025-09-20.2040.working...!!
!!
Connection to 192.168.74.1 closed by remote host.
Connection to 192.168.74.1 closed.
anton-w@ant1mbp7 ~ %
```

Login and overwrite startup config, reboot if needed.

wr m

reload

Backup and restore configuration using Secure Shell (SSH)

scp must be enabled

```
enable
conf t
ssh enable scopy
```

dump running-config into file

```
copy running-config flash:/running-config
dir
```

SSH weak algorithms and ciphers need to be enabled

```
vi ~/.ssh/config
```

config

```
Host 192.168.74.1
  KexAlgorithms +diffie-hellman-group14-sha1
  HostKeyAlgorithms +ssh-rsa
  Ciphers +aes256-cbc
```

Pull config (-O tells to use legacy SCP protocol instead of SFTP)

```
scp -O r00t@192.168.74.1:running-config .
ls -la
```

```
anton-w@ant1mbp7 tftp % scp -0 r00t@192.168.74.1:running-config .
r00t@192.168.74.1's password:
running-config
anton-w@ant1mbp7 tftp % ls -la
total 16
drwxr-xr-x@ 3 anton-w  staff   96 Nov 22 18:52 .
drwxr-xr-x@ 5 anton-w  staff  160 Nov 22 16:40 ..
-rw-r--r--@ 1 anton-w  staff  4567 Nov 22 18:52 running-config
anton-w@ant1mbp7 tftp %
```

100% 4567 59.6KB/s 00:00

Rename config for archive

TODO

Restore

Push config

TODO