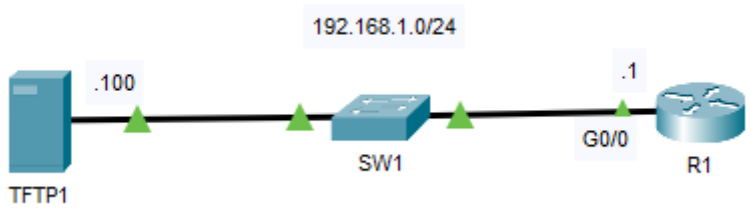
ACTIVITY 41: Password Recovery, Configuration Backup, IOS Upgrade



I. Perform password recovery on R1 (change the enable secret to ccna):

In Packet tracer:

1- Reset the router: press the power button twice
2- CTRL + C
3- Make R1 run without the start-up config (so ignore NVRAM):
   a. Change the config register:
      rommon 1 > confreg 0x2142
   b. Reset the router:
      rommon 2> reset
   c. After reboot:
      No for enterning the initial config diaglog
4- Enter the executive mode (no need for a password):
      Router> en
      Router#
5- Copy the startup config to running config, the router changes its name to what is in startup-config
      Router# copy start run
      R1#
6- Now, change the password:
      R1# conf t
      R1 (config)# enable secret ccna
7- Restore the config register to its default to stop ignoring the startup config, then save it:
      R1(config)#config-register 0x2102
      R1#wr
8- Reload and check the enable password again:
      R1#reload
      ….
      R1>en
      Password:
      R1#
9- Enable the interface g0/0:
      R1(config)#int g0/0
      R1(config-if)#no shut

II. Backup R1's startup configuration to the TFTP server TFTP1

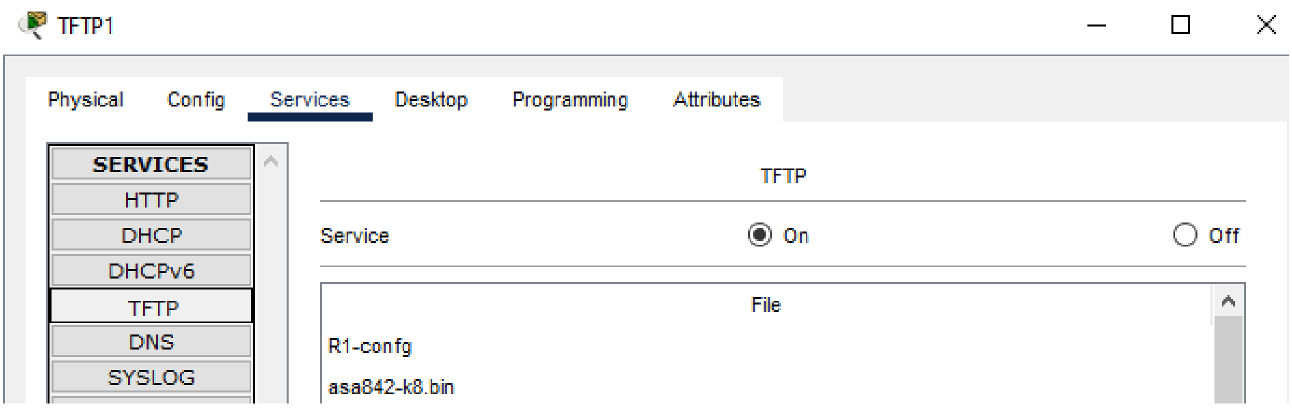
1- Copy the startup-config to 192.168.1.100 and accept the default filename to R1-config:

```
R1#copy startup-config tftp
Address or name of remote host []? 192.168.1.100
Destination filename [R1-confg]?

Writing startup-config....!!
[OK - 837 bytes]

837 bytes copied in 3.003 secs (278 bytes/sec)
```

2- Check on the tftp server



<u>III. Upgrade R1's IOS image to the c2900-universalk9-mz.SPA.155-3.M4a.bin image on TFTP1</u>

1- Check the IOS version on the router:
You can see the 'System image file' on under the show version

```
R1#sh version
Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4,
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2012 by Cisco Systems, Inc.
Compiled Thurs 5-Jan-12 15:41 by pt_team

ROM: System Bootstrap, Version 15.1(4)M4, RELEASE SOFTWARE (fc1)
cisco2911 uptime is 7 minutes, 38 seconds
System returned to ROM by power-on
System image file is "flash0:c2900-universalk9-mz.SPA.151-1.M4.bin"
Last reload type: Normal Reload
```

2- Copy the new System image file from the tftp server 192.168.1.100:
R1# copy tftp flash
Address or name of remote host []? 192.168.1.100
Source filename []? #enter the name of the new System image file then Enter

```
R1#copy tftp: flash
Address or name of remote host []? 192.168.1.100
Source filename []? c2900-universalk9-mz.SPA.155-3.M4a.bin
Destination filename [c2900-universalk9-mz.SPA.155-3.M4a.bin]?

Accessing tftp://192.168.1.100/c2900-universalk9-mz.SPA.155-3.M4a.bin...
Loading c2900-universalk9-mz.SPA.155-3.M4a.bin from 192.168.1.100:
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[OK - 33591768 bytes]

33591768 bytes copied in 0.65 secs (5426149 bytes/sec)
R1#
```

3- Check if the new System image file is on flash:

```
R1#sh flash

System flash directory:
File  Length   Name/status
  3   33591768 c2900-universalk9-mz.SPA.151-4.M4.bin
  4   33591768 c2900-universalk9-mz.SPA.155-3.M4a.bin
  2   28282    sigdef-category.xml
  1   227537   sigdef-default.xml
[67439355 bytes used, 188304645 available, 255744000 total]
249856K bytes of processor board System flash (Read/Write)
```

4- Delete the old System image file from flash

R1# delete flash:

```
R1#delete flash:
Delete filename []?c2900-universalk9-mz.SPA.151-4.M4.bin
Delete flash:/c2900-universalk9-mz.SPA.151-4.M4.bin? [confirm]
```

5- Check everything on flash again with #show flash

```
R1#sh flash

System flash directory:
File  Length   Name/status
  4   33591768 c2900-universalk9-mz.SPA.155-3.M4a.bin
  2   28282    sigdef-category.xml
  1   227537   sigdef-default.xml
[33847587 bytes used, 221896413 available, 255744000 total]
249856K bytes of processor board System flash (Read/Write)
```

6- Write and reload the router

7- Show version again:

```
R1#sh version
Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.5(3)M4a, RELEASE
SOFTWARE (fc1)
```