**Lab 7**

**Group 1**

**Vasylyshyn Danylo 256711**

**Nykonchuk Illia 245693**

**Task 1**

Connecting everything and testing console connection.

**Task2**

**Erasing nvram:**

Router#erase startup-config

Erasing the nvram filesystem will remove all configuration files! Continue? [confirm]

[OK]

Erase of nvram: complete

%SYS-7-NV\_BLOCK\_INIT: Initialized the geometry of nvram

**Reset the router:**

Router#reload

System configuration has been modified. Save? [yes/no]:n

Proceed with reload? [confirm]ySystem Bootstrap, Version 12.1(3r)T2, RELEASE SOFTWARE (fc1)

Copyright (c) 2000 by cisco Systems, Inc.

Initializing memory for ECC

..

C2800 processor with 524288 Kbytes of main memory

Main memory is configured to 64 bit mode with ECC enabled

Readonly ROMMON initialized

program load complete, entry point: 0x8000f000, size: 0xc940

program load complete, entry point: 0x8000f000, size: 0xc940

program load complete, entry point: 0x8000f000, size: 0x3ed1338

Self decompressing the image :

########################################################################## [OK]

**Rename router:**

Router>enable

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#hostname R\_1

R\_1(config)#

**Setting message of the day:**

R\_1(config)#banner motd # A supervised system. Access only to authorized #

**Setting access passwords:**

R\_1(config)#enable password class

R\_1(config)#line console 0

R\_1(config-line)#password cisco

R\_1(config-line)#login

R\_1(config-line)#exit

R\_1(config)#line vty 0 4

R\_1(config-line)#password cisco

R\_1(config-line)#login

R\_1(config-line)#exit

**Show running config:**

R\_1#show running-config

Building configuration...

Current configuration : 797 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname R\_1

!

!

!

enable password class

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

no ip address

duplex auto

speed auto

shutdown

!

interface FastEthernet0/1

no ip address

duplex auto

speed auto

shutdown

!

interface Serial0/0/0

no ip address

clock rate 2000000

shutdown

!

interface Serial0/0/1

no ip address

shutdown

!

interface Vlan1

no ip address

shutdown

!

ip classless

!

ip flow-export version 9

!

!

!

banner motd ^C A supervised system. Access only to authorized ^C

!

!

!

!

!

line con 0

password cisco

login

!

line aux 0

!

line vty 0 4

password cisco

login

!

!

!

end

**Configuring ip addresses:**

**Ethernet 0/0**

R\_1#config t

Enter configuration commands, one per line. End with CNTL/Z.

R\_1(config)#interface FastEthernet0/0

R\_1(config-if)#description Connection to LAN\_1

R\_1(config-if)#ip address 192.168.1.10 255.255.255.0

R\_1(config-if)#no shutdown

R\_1(config-if)#

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R\_1(config-if)#exit

**Ethernet 0/1**

R\_1#config t

Enter configuration commands, one per line. End with CNTL/Z.

R\_1(config)#interface FastEthernet0/1

R\_1(config-if)#ip address 192.168.101.10 255.255.255.0

R\_1(config-if)#description connection to LAN\_101

R\_1(config-if)#no shutdown

R\_1(config-if)#

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

R\_1(config-if)#exit

**Showing serial 0/0/0 controller configuration:**

R\_1#show controllers Serial 0/0/0

Interface Serial0/0/0

Hardware is PowerQUICC MPC860

DCE V.35, clock rate 2000000

idb at 0x81081AC4, driver data structure at 0x81084AC0

SCC Registers:

General [GSMR]=0x2:0x00000000, Protocol-specific [PSMR]=0x8

Events [SCCE]=0x0000, Mask [SCCM]=0x0000, Status [SCCS]=0x00

Transmit on Demand [TODR]=0x0, Data Sync [DSR]=0x7E7E

Interrupt Registers:

Config [CICR]=0x00367F80, Pending [CIPR]=0x0000C000

Mask [CIMR]=0x00200000, In-srv [CISR]=0x00000000

Command register [CR]=0x580

Port A [PADIR]=0x1030, [PAPAR]=0xFFFF

[PAODR]=0x0010, [PADAT]=0xCBFF

Port B [PBDIR]=0x09C0F, [PBPAR]=0x0800E

[PBODR]=0x00000, [PBDAT]=0x3FFFD

Port C [PCDIR]=0x00C, [PCPAR]=0x200

[PCSO]=0xC20, [PCDAT]=0xDF2, [PCINT]=0x00F

Receive Ring

rmd(68012830): status 9000 length 60C address 3B6DAC4

rmd(68012838): status B000 length 60C address 3B6D444

Transmit Ring

tmd(680128B0): status 0 length 0 address 0

tmd(680128B8): status 0 length 0 address 0

tmd(680128C0): status 0 length 0 address 0

tmd(680128C8): status 0 length 0 address 0

tmd(680128D0): status 0 length 0 address 0

tmd(680128D8): status 0 length 0 address 0

tmd(680128E0): status 0 length 0 address 0

tmd(680128E8): status 0 length 0 address 0

tmd(680128F0): status 0 length 0 address 0

tmd(680128F8): status 0 length 0 address 0

tmd(68012900): status 0 length 0 address 0

tmd(68012908): status 0 length 0 address 0

tmd(68012910): status 0 length 0 address 0

tmd(68012918): status 0 length 0 address 0

tmd(68012920): status 0 length 0 address 0

tmd(68012928): status 2000 length 0 address 0

tx\_limited=1(2)

SCC GENERAL PARAMETER RAM (at 0x68013C00)

Rx BD Base [RBASE]=0x2830, Fn Code [RFCR]=0x18

Tx BD Base [TBASE]=0x28B0, Fn Code [TFCR]=0x18

Max Rx Buff Len [MRBLR]=1548

Rx State [RSTATE]=0x0, BD Ptr [RBPTR]=0x2830

Tx State [TSTATE]=0x4000, BD Ptr [TBPTR]=0x28B0

SCC HDLC PARAMETER RAM (at 0x68013C38)

CRC Preset [C\_PRES]=0xFFFF, Mask [C\_MASK]=0xF0B8

Errors: CRC [CRCEC]=0, Aborts [ABTSC]=0, Discards [DISFC]=0

Nonmatch Addr Cntr [NMARC]=0

Retry Count [RETRC]=0

Max Frame Length [MFLR]=1608

Rx Int Threshold [RFTHR]=0, Frame Cnt [RFCNT]=0

User-defined Address 0000/0000/0000/0000

User-defined Address Mask 0x0000

buffer size 1524

PowerQUICC SCC specific errors:

0 input aborts on receiving flag sequence

0 throttles, 0 enables

0 overruns

0 transmitter underruns

0 transmitter CTS losts

0 aborted short frames

**Configuring connections to other routers:**

R\_1#config t

Enter configuration commands, one per line. End with CNTL/Z.

R\_1(config)#inter

R\_1(config)#interface Seri

R\_1(config)#interface Serial 0/0/0

R\_1(config-if)#description Connection to R\_2

R\_1(config-if)#ip address 10.1.2.1 255.255.255.0

R\_1(config-if)#clock ra

R\_1(config-if)#clock rate 128000

R\_1(config-if)#no shut

R\_1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down

R\_1(config-if)#exit

R\_1(config)#interface Serial 0/0/1

R\_1(config-if)#

R\_1(config-if)#desc

R\_1(config-if)#description Connection to R\_4

R\_1(config-if)#ip address 10.4.1.2

% Incomplete command.

R\_1(config-if)#ip address 10.4.1.2 255.255.255.0

R\_1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/1, changed state to down

R\_1(config-if)#exit

R\_1(config)#

**Running config vs Startup config (NVRAM vs RAM)**

**Running config:**

R\_1#show running-config

Building configuration...

Current configuration : 976 bytes

!

version 12.4

no service timestamps log datetime msec

no service timestamps debug datetime msec

no service password-encryption

!

hostname R\_1

!

!

!

enable password class

!

!

!

!

!

!

no ip cef

no ipv6 cef

!

!

!

!

!

!

!

!

!

!

!

!

spanning-tree mode pvst

!

!

!

!

!

!

interface FastEthernet0/0

description Connection to LAN\_1

ip address 192.168.1.10 255.255.255.0

duplex auto

speed auto

!

interface FastEthernet0/1

description connection to LAN\_101

ip address 192.168.101.10 255.255.255.0

duplex auto

speed auto

!

interface Serial0/0/0

description Connection to R\_2

ip address 10.1.2.1 255.255.255.0

clock rate 128000

!

interface Serial0/0/1

description Connection to R\_4

ip address 10.4.1.2 255.255.255.0

!

interface Vlan1

no ip address

shutdown

!

ip classless

!

ip flow-export version 9

!

!

!

banner motd ^C A supervised system. Access only to authorized ^C

!

!

!

!

!

line con 0

password cisco

login

!

line aux 0

!

line vty 0 4

password cisco

login

!

!

!

End

**Startup config:** not present

**After copying:**

R\_1#copy running-config startup-config it’s the same as NVRAM

**Task 3:**

**Erasing startup conf:**

S\_2# erase startup

S\_2# erase startup-config

Erasing the nvram filesystem will remove all configuration files! Continue? [confirm]

[OK]

Erase of nvram: complete

%SYS-7-NV\_BLOCK\_INIT: Initialized the geometry of nvram

S\_2#

**Reloading**

S\_2#reload

Proceed with reload? [confirm]

C2960 Boot Loader (C2960-HBOOT-M) Version 12.2(25r)FX, RELEASE SOFTWARE (fc4)

Cisco WS-C2960-24TT (RC32300) processor (revision C0) with 21039K bytes of memory.

2960-24TT starting...

Base ethernet MAC Address: 0060.3E14.2A63

Xmodem file system is available.

Initializing Flash...

flashfs[0]: 1 files, 0 directories

flashfs[0]: 0 orphaned files, 0 orphaned directories

flashfs[0]: Total bytes: 64016384

flashfs[0]: Bytes used: 4414921

flashfs[0]: Bytes available: 59601463

flashfs[0]: flashfs fsck took 1 seconds.

...done Initializing Flash.

Boot Sector Filesystem (bs:) installed, fsid: 3

Parameter Block Filesystem (pb:) installed, fsid: 4

Loading "flash:/c2960-lanbase-mz.122-25.FX.bin"...

########################################################################## [OK]

**Setting hostname:**

Switch(config)#hostname S\_2

S\_2(config)#exit

S\_2#

%SYS-5-CONFIG\_I: Configured from console by console

**Setting message of the day:**

S\_2(config)#banner motd #A supervised system. Access only to authorized users#

S\_2(config)#exit

**Setting passwords:**

S\_2#config t

Enter configuration commands, one per line. End with CNTL/Z.

S\_2(config)#enable password class

S\_2(config)#line con

S\_2(config)#line console 0

S\_2(config-line)#password cisco

S\_2(config-line)#login

S\_2(config-line)#exit

S\_2(config)#line vt

S\_2(config)#line vty 0 15

S\_2(config-line)#password cisco

S\_2(config-line)#login

S\_2(config-line)#exit

S\_2(config)#

**Configuring Vlan1:**

S\_2(config)#interface Vlan1

S\_2(config-if)#description Vlan manager

S\_2(config-if)#ip address 192.168.2.29 255.255.255.0

S\_2(config-if)#no shutdown

S\_2(config-if)#

%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

S\_2(config-if)#

**Configuring FastEthernet Connections:**

S\_2(config)#interface fa

S\_2(config)#interface fastEthernet

% Incomplete command.

S\_2(config)#interface fastEthernet 0/1

S\_2(config-if)#description Connnection to PC\_21

S\_2(config-if)#exit

S\_2(config)#interface fas

S\_2(config)#interface fastEthernet 0/11

S\_2(config-if)#descr

S\_2(config-if)#description connec

S\_2(config-if)#description Connection to PC\_22

S\_2(config-if)#exit

S\_2(config)#

**Saving configurations:**

S\_2#show startup-config

startup-config is not present

S\_2#cop

S\_2#copy running

S\_2#copy running-config start

S\_2#copy running-config startup-config

**Task 4:**

**a)**

**Copying configuration to the txt file and than to running config.**

**b)**

**Assigning ip’s to pc**

**Copying running conf to the tftp server:**

R\_2>enable

Password:

R\_2#copy running-c

R\_2#copy running-config tftp

Address or name of remote host []? 192.168.2.21

Destination filename [R\_2-confg]? R\_2\_log.txt

Writing running-config....!!

[OK - 976 bytes]

976 bytes copied in 3.016 secs (323 bytes/sec)

R\_2#

**Erasing the startup conf:**

R\_2#show startup-config

startup-config is not present

**Copying from tftp to startap conf:**

R\_2#copy tftp startup-config

Address or name of remote host []? 192.168.2.21

Source filename []? R\_2\_log.txt

Destination filename [startup-config]?

Accessing tftp://192.168.2.21/R\_2\_log.txt...

Loading R\_2\_log.txt from 192.168.2.21: !

[OK - 976 bytes]

976 bytes copied in 0 secs

R\_2#