

-----SUB 1----- (pe toate dispozitivele cerute)

```
hostname <NAME>
banner motd #ACCES INTERZIS#
no ip domain-lookup
enable password ACADNET2023
```

-----SUB 2-----

```
VLAN 10 -> Generatia-2015 -> 2001:ACAD:1234:3F00::/120
VLAN 20 -> Generatia-2005 -> 2001:ACAD:1234:3F00::0180/124
VLAN 30 -> Generatia-1994 -> 2001:ACAD:1234:3F00::0100/121
VLAN 99 -> Coordonare -> 2001:ACAD:1234:3F00::0190/125
```

-----SUB 3----- (pe toate dispozitivele cerute)

Distribution0

```
en
conf t
int fa0/3
sw mo acc
sw acc vlan 10
vlan 10
name Generatie-2015
int fa0/4
sw mo acc
sw acc vlan 20
vlan 20
name Generatie-2005
vlan 30
name Generatie-1995
vlan 99
name Coordonator
int fa0/2
sw mo tr
sw tr all vlan 10,20,30,99
int fa0/1
sw mo tr
sw tr all vlan 10,20,30,99
```

Distribution2

```
en
conf t
int fa0/2
sw mo acc
sw acc vlan 20
int fa0/3
sw mo acc
sw acc vlan 99
```

```
vlan 10
name Generatie-2015
vlan 20
name Generatie-2005
vlan 30
name Generatie-1995
vlan 99
name Coordonator
int fa0/1
sw mo tr
sw tr all vlan 10,20,30,99
int fa0/4
sw mo tr
sw tr all vlan 10,20,30,99
do wr
```

Distribution1

```
en
conf t
int fa0/3
sw mo acc
sw acc vlan 30
int fa0/2
sw mo tr
sw tr all vlan 10,20,30,99
int fa0/1
sw mo tr
sw tr all vlan 10,20,30,99
vlan 10
name Generatie-2015
vlan 20
name Generatie-2005
vlan 30
name Generatie-1995
vlan 99
do wr
```

Distribution 3

```
en
conf t
int fa0/4
sw mo acc
sw acc vlan 10
int fa0/3
sw mo acc
sw acc vlan 30
int fa0/1
sw mo tr
```

```
sw tr all vlan 10,20,30,99
int fa0/2
sw mo tr
sw tr all vlan 10,20,30,99
vlan 10
name Generatie-2015
vlan 20
name Generatie-2005
vlan 30
name Generatie-1995
vlan 99
do wr
```

```
FL4
en
conf t
int range fa0/1-3
sw mo tr
sw tr all vlan 10,20,30
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

```
SL0
en
conf t
int fa0/1
sw mo tr
sw tr all vlan 10,20,30
int fa0/2
sw mo acc
sw acc vlan 10
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

```
SL1
conf t
int fa0/2
sw mo tr
sw tr all vlan 10,20,30
```

```
int fa0/1
sw mo acc
sw acc vlan 20
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

```
FL5
en
conf t
int range fa0/1-4
sw mo tr
sw tr all vlan 10,20,30
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

FL2

```
en
conf t
int fa0/1
sw mo tr
sw tr all vlan 10,20,30
int fa0/2
sw mo acc
sw acc vlan 30
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

```
FL0
en
conf t
int range fa0/1-3
sw mo tr
sw tr all vlan 10,20,30
```

```
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

FL1

```
conf t
int range fa0/1-3
sw mo tr
sw tr all vlan 10,20,30
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

FL2

```
conf t
int range fa0/1-4
sw mo tr
sw tr all vlan 10,20,30
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

FL3

```
conf t
int range fa0/1-3
sw mo tr
sw tr all vlan 10,20,30
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

SL3

```
en
conf t
int fa0/1
sw mo tr
sw tr all vlan 10,20,30
int fa0/2
sw mo acc
sw acc vlan 20
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

SL4

```
conf t
int fa0/1
sw mo tr
sw tr all vlan 10,20,30
int fa0/2
sw mo acc
sw acc vlan 10
vlan 10
name Licenta
vlan 20
name Master
vlan 30
name Doctorat
do wr
```

SL5

```
conf t
int fa0/1
sw mo tr
sw tr all vlan 10,20,30
int fa0/2
sw mo acc
sw acc vlan 30
vlan 10
name Licenta
vlan 20
name Master
```

```
vlan 30
name Doctorat
do wr
```

—————SUB 5—————

```
VLAN 10 - Licenta - 10.10.0.0/23
VLAN 20 - Master - 10.10.3.0/27
VLAN 30 - Doctorat - 10.10.2.0/24
```

—————SUB 6————— (pe toate dispozitivele cerute)

RouterFirstLayer1

```
conf t
ip dhcp pool Licenta
network 10.10.0.0 255.255.254.0
default-router 10.10.0.1
dns-server 4.2.2.2
ip dhcp excluded-address 10.10.0.1
do wr
```

```
conf t
ip dhcp pool Master
network 10.10.3.0 255.255.255.224
default-router 10.10.3.1
dns-server 4.2.2.2
ip dhcp excluded-address 10.10.3.1
do wr
```

```
ip dhcp pool Doctorat
network 10.10.2.0 255.255.255.0
default-router 10.10.2.1
dns-server 4.2.2.2
ip dhcp excluded-address 10.10.2.1
do wr
```

—————SUB 7————— (pe toate dispozitivele cerute)

RouterFirstLayer3

```
conf t
ipv6 unicast-routing
int gig0/0/0.10
encapsulation dot1q 10
ipv6 add 2001:ACAD:1234:3F00::1/120
int gig0/0/0.20
encapsulation dot1q 20
ipv6 add 2001:ACAD:1234:3F00::0181/124
int gig0/0/0
```

no sh

```
int gig0/0/1.30
encapsulation dot1q 30
ipv6 add 2001:ACAD:1234:3F00::0101/121
int gig0/0/1.99
encapsulation dot1q 99
ipv6 add 2001:ACAD:1234:3F00::0191/125
int gig0/0/1
no sh
do wr
```

RouterFirstLayer1

```
conf t
int gig0/0/0.10
encap dot1q 10
ip add 10.10.10.1 255.255.254.0
int gig0/0/0.20
encap dot1q 20
ip add 10.10.3.1 255.255.255.224
int gig0/0/0.30
encap dot1q 30
ip add 10.10.2.1 255.255.255.0
int gig0/0/0
no sh
do wr
```

-----SUB 8-----

173.158.25.148/16 -> 173.158.0.0
vlan 25 -> 173H + 2H = 175H <= 2⁸ -> 173.158.0.0 - 173.158.0.255 / 24
vlan 24 -> 78H + 2H = 80H <= 2⁷ -> 173.158.1.0 - 173.158.1.127 / 25
vlan 22 -> 63H + 2H = 65H <= 2⁷ -> 173.158.1.128 - 173.158.1.255 / 25
vlan 23 -> 58H + 2H = 60H <= 2⁶ -> 173.158.2.0 - 173.158.2.63 / 26
vlan 21 -> 33H + 2H = 35H <= 2⁶ -> 173.158.2.64 - 173.158.2.127 / 26

MSD3

- VLAN acces 21

MSD4

- VLAN 22 creat
- IP pe VLAN 22

MSD6

- IP-urile trebuie interschimbate (sunt puse greșit) VLAN24 <-> VLAN25

-----SUB 9----- (pe toate dispozitivele cerute)

MSD6

ip route 0.0.0.0 0.0.0.0 101.101.101.2

MSD2

ip route 0.0.0.0 0.0.0.0 101.101.104.1

MSD3

ip route 0.0.0.0 0.0.0.0 101.101.109.2

MSD4

ip route 0.0.0.0 0.0.0.0 101.101.102.2

MSD5

ip route 0.0.0.0 0.0.0.0 101.101.108.2

—————SUB 10—————

221.224.210.0/22->221.224.208.0

VLAN 10 - Electronica -> 62H + 2H = 64H <= 2⁶ -> 221.224.208.0 -

221.224.208.63 / 26-> 255.255.255.192

VLAN 20 - Sisteme -> 50H + 2H = 52H <= 2⁶ -> 221.224.208.64 -

221.224.208.127/ 26-> 255.255.255.192

VLAN 30 - Robotica -> 30H + 2H = 32H <= 2⁵ -> 221.224.208.128-

221.224.208.169/ 27-> 255.255.255.224

VLAN 40 - ETTI -> 20H + 2H = 22H <= 2⁵ -> 221.224.208.170-

221.224.208.201/ 27-> 255.255.255.224

VLAN 99 - Manager -> 10H + 2H = 12H <= 2⁴ -> 221.224.208.202-

221.224.208.217/ 28-> 255.255.255.240

SD1

- Fa0/1 în mod trunk

SD10

- Fa0/2 VLAN10 acces

- Fa0/3 VLAN99 acces

SD2

- Fa0/3 în mod acces VLAN10

—————SUB 11————— (pe toate dispozitivele cerute)

RSL0

ip route 221.224.208.0 255.255.255.0 190.224.101.2

ip route 10.10.0.0 255.255.252.0 190.224.102.2

```
ip route 173.158.0.0 255.255.252.0 190.224.102.2
```

RSL1

```
ip route 221.224.208.0 255.255.255.0 190.224.102.1
```

```
ip route 10.10.0.0 255.255.252.0 190.224.103.1
```

```
ip route 173.158.0.0 255.255.252.0 190.224.103.1
```

RSL2

```
ip route 221.224.208.0 255.255.255.0 190.224.103.1
```

```
ip route 10.10.0.0 255.255.252.0 190.224.104.2
```

```
ip route 173.158.0.0 255.255.252.0 190.224.105.2
```

RFL0

```
ip route 0.0.0.0 0.0.0.0 101.101.108.2
```

RFL1

```
ip route 0.0.0.0 0.0.0.0 190.224.104.1
```

RFL2

```
ip route 0.0.0.0 0.0.0.0 190.224.105.1
```