

dernier hôte 126
route pour le retour du routeurs
192.168.0.0/16
ip routeur 192.168.170.123

Adressage IPv4

plan IPv4 :

- 90 postes max. /Vlan (6 vlan[10, 20, 30, 40, 50, 60]) => 540 postes max.
- @ IP privée :
 - Déterminer la classe de l'adressage IP pour que toutes les machines est la même @ IP (+ déterminer classful & classless)
 - Classes : A (@ hôte : 8 bits, @ machine : 24 bits), B(@ hôte : 16 bits, @ machine: 16 bits), C (@ hôte : 24 bits, @ machine : 8 bits)
 - **!! NE PAS UTILISER LES ADRESSES DE BROADCASTS + LOOPBACKS ET DE L'ADRESSE PAR DÉFAUT**

Adresse proxmox : <https://192.168.111.24:8006>

Administration Informatique => 5

◦

Administratif => 5

◦

Supervision => 10

◦

Services logiciels (hébergement des serveurs) => 10

◦

Comptabilité => 15

◦

Equipe Terrain => 15

Commandes:

pwgen -s - y 8 90 > test.txt

newusers [options] [file]

Configurations :

Routeur :

Current configuration : 2962 bytes

!

! Last configuration change at 15:22:59 UTC Fri Jan 14 2022

!

version 15.7

```
service timestamps debug datetime msec
```

```
service timestamps log datetime msec
```

no service password-encryption

!

```
hostname Router
```

!

boot-start-marker

boot-end-marker

!

!

!

no aaa new-model

```
memory-size iomem 15
```

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

!

ip cef

```
no ipv6 cef
```

!

multilink bundle-name authenticated

```

!
!
!
!
!
!
!
!
voice-card 0
!
!
!
!
!
!
!
!
vxml logging-tag
license udi pid CISCO2911/K9 sn FCZ1633722X
license accept end user agreement
license boot module c2900 technology-package securityk9
license boot module c2900 technology-package uck9
license boot module c2900 technology-package datak9
!
!
!
redundancy
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface Embedded-Service-Engine0/0
no ip address
shutdown
!
interface GigabitEthernet0/0
ip address 192.168.170.1 255.255.255.252
duplex auto
speed auto

```

```

!
interface GigabitEthernet0/0.10
 encapsulation dot1Q 10
 ip address 192.168.110.126 255.255.255.128
!
interface GigabitEthernet0/0.20
 encapsulation dot1Q 20
 ip address 192.168.120.126 255.255.255.128
!
interface GigabitEthernet0/0.30
 encapsulation dot1Q 30
 ip address 192.168.130.126 255.255.255.128
!
interface GigabitEthernet0/0.40
 encapsulation dot1Q 40
 ip address 192.168.140.126 255.255.255.128
!
interface GigabitEthernet0/0.50
 encapsulation dot1Q 50
 ip address 192.168.150.126 255.255.255.128
!
interface GigabitEthernet0/0.60
 encapsulation dot1Q 60
 ip address 192.168.160.126 255.255.255.128
!
interface GigabitEthernet0/1
 ip address dhcp
 ip nat outside
 ip virtual-reassembly in
 duplex auto
 speed auto
!
interface GigabitEthernet0/1.20
 encapsulation dot1Q 17
 ip address 10.72.20.254 255.255.255.0
!
interface GigabitEthernet0/1.30
 encapsulation dot1Q 30
 ip address 10.72.30.254 255.255.255.0
!
interface GigabitEthernet0/1.40
 encapsulation dot1Q 40
 ip address 10.72.40.254 255.255.255.0
!
interface GigabitEthernet0/1.60
 encapsulation dot1Q 60
 ip address 10.72.60.254 255.255.255.0
!
interface GigabitEthernet0/2
 no ip address

```

```

ip nat inside
ip virtual-reassembly in
shutdown
duplex auto
speed auto
!
interface Serial0/0/0
no ip address
shutdown
clock rate 2000000
!
interface Serial0/0/1
no ip address
shutdown
clock rate 2000000
!
!
ip forward-protocol nd
!
no ip http server
no ip http secure-server
!
ip nat inside source static 20.0.0.1 192.168.222.124
ip route 0.0.0.0 0.0.0.0 192.168.111.0
ip route 0.0.0.0 0.0.0.0 192.168.111.1
!
ipv6 ioam timestamp
!
!
!
control-plane
!
!
!
!
!
!
mgcp behavior rsip-range tgcp-only
mgcp behavior comedia-role none
mgcp behavior comedia-check-media-src disable
mgcp behavior comedia-sdp-force disable
!
mgcp profile default
!
!
!
!
!
!
!

```

```
gatekeeper
shutdown
!
!
line con 0
line aux 0
line 2
no activation-character
no exec
transport preferred none
transport output lat pad telnet rlogin lapb-ta mop udptn v120 ssh
stopbits 1
line vty 0 4
login
transport input none
!
scheduler allocate 20000 1000
!
end
```

Switch multilayer:

```
!  
version 12.2  
no service pad  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname Switch  
!  
boot-start-marker  
boot-end-marker  
!  
!  
!  
!  
no aaa new-model  
switch 1 provision ws-c3750-24ts  
system mtu routing 1500  
ip routing  
!  
!  
!  
!  
crypto pki trustpoint TP-self-signed-1782389248  
  enrollment selfsigned  
  subject-name cn=IOS-Self-Signed-Certificate-1782389248  
  revocation-check none  
  rsakeypair TP-self-signed-1782389248  
!  
!  
crypto pki certificate chain TP-self-signed-1782389248  
  certificate self-signed 01  
    3082023F 308201A8 A0030201 02020101 300D0609 2A864886 F70D0101 04050030  
    31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274  
    69666963 6174652D 31373832 33383932 3438301E 170D3933 30333031 30303130  
    31355A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649  
    4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D31 37383233  
    38393234 3830819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281  
    8100A600 CCB01102 A419F572 77BF0914 C53611FB 69821005 376012D7 566EACDB  
    88A45FD7 E5A22484 4950FF54 2760C4A0 4AA0289F EAA7AAC8 07A07434 64C08865  
    62E1F546 86DA9923 C6AE3375 1F3E7792 332DED32 637E19B7 078F0C81 D965C566  
    2F4A7246 3F01CBEC 1050F1F6 7440C37E CA3D4C1B 226DD37C 3B53A9BD 5157EB9A  
    AE1D0203 010001A3 67306530 0F060355 1D130101 FF040530 030101FF 30120603  
    551D1104 0B300982 07537769 7463682E 301F0603 551D2304 18301680 147C3644  
    84CB98EF B3071596 AC36C7F7 AF714765 53301D06 03551D0E 04160414 7C364484  
    CB98EFB3 071596AC 36C7F7AF 71476553 300D0609 2A864886 F70D0101 04050003
```

```

81810066 1338136C 1974EFE6 9E84F5C6 EC8A96B6 FE9C6185 8AF5CE8F DB44F7BE
ECFB5A7A 647263F0 BAE96A53 64E0BA19 9073839B FC00F50D 96FB4E19 A02F4806
DD19B0F7 419B70E1 B58F352D AF17B0E3 D23581BB 2C37DED8 A2C7F455 25BAC76D
FCB01097 14A6DA4D 55927F4B 8ADEEE3B 2D82FE89 0BF1FA4C 3D1D0D8E 3D4615FE
34DA1F
quit
!
!
!
!
spanning-tree mode rapid-pvst
spanning-tree extend system-id
!
vlan internal allocation policy ascending
!
!
!
!
interface Port-channel1
switchport access vlan 60
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,20,30,40,50,60
switchport mode trunk
duplex full
!
interface FastEthernet1/0/1
switchport access vlan 60
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,20,30,40,50,60
switchport mode trunk
duplex full
channel-protocol pagp
channel-group 1 mode desirable
spanning-tree portfast
!
interface FastEthernet1/0/2
switchport access vlan 60
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,20,30,40,50,60
switchport mode trunk
duplex full
channel-protocol pagp
channel-group 1 mode desirable
spanning-tree portfast
!
interface FastEthernet1/0/3
switchport access vlan 60
switchport trunk encapsulation dot1q
switchport trunk allowed vlan 10,20,30,40,50,60
spanning-tree portfast

```



```

!
interface FastEthernet1/0/4
  switchport access vlan 60
  switchport trunk encapsulation dot1q
  switchport trunk allowed vlan 10,20,30,40,50,60
  spanning-tree portfast
!
interface FastEthernet1/0/5
  no switchport
  no ip address
  spanning-tree portfast
!
interface FastEthernet1/0/6
  switchport access vlan 60
  switchport trunk encapsulation dot1q
  switchport mode trunk
  spanning-tree portfast
!
interface FastEthernet1/0/7
  switchport access vlan 60
  switchport trunk encapsulation dot1q
  switchport trunk allowed vlan 10,20,30,40,50,60
  switchport mode trunk
  spanning-tree portfast
!
interface FastEthernet1/0/8
  switchport trunk encapsulation dot1q
  spanning-tree portfast
!
interface FastEthernet1/0/9
  switchport trunk encapsulation dot1q
  spanning-tree portfast
!
interface FastEthernet1/0/10
  switchport trunk encapsulation dot1q
  spanning-tree portfast
!
interface FastEthernet1/0/11
  switchport trunk encapsulation dot1q
  spanning-tree portfast
!
interface FastEthernet1/0/12
  switchport trunk encapsulation dot1q
  spanning-tree portfast
!
interface FastEthernet1/0/13
  switchport trunk encapsulation dot1q
  spanning-tree portfast
!
interface FastEthernet1/0/14

```

```

switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/15
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/16
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/17
switchport access vlan 10
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/18
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/19
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/20
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/21
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/22
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface FastEthernet1/0/23
no switchport
ip address 192.168.170.123 255.255.255.128
spanning-tree portfast
!
interface FastEthernet1/0/24
switchport access vlan 10
switchport trunk encapsulation dot1q
spanning-tree portfast
!
interface GigabitEthernet1/0/1
!
interface GigabitEthernet1/0/2
!

```

```

interface Vlan1
ip address 192.168.111.126 255.255.255.128

!
interface Vlan10
description Services Logiciels
ip address 192.168.110.125 255.255.255.128
!
interface Vlan20
description Comptabilite
ip address 192.168.120.125 255.255.255.128
!
interface Vlan30
description Equipe Terrain
ip address 192.168.130.125 255.255.255.128
!
interface Vlan40
description Administratif
ip address 192.168.140.125 255.255.255.128
!
interface Vlan50
description Supervision
ip address 192.168.150.125 255.255.255.128
!
interface Vlan60
description Administration informatique
ip address 192.168.160.125 255.255.255.128
!
!
router eigrp 1
!
ip classless
ip route 0.0.0.0 0.0.0.0 192.168.170.1
ip http server
ip http secure-server
!
!
!
!
!
line con 0
line vty 0 4
login
line vty 5 15
login
!
end

```

Config SW1 :

```
!  
version 15.0  
no service pad  
service timestamps debug datetime msec  
service timestamps log datetime msec  
no service password-encryption  
!  
hostname SW1  
!  
boot-start-marker  
boot-end-marker  
!  
!  
username cisco password 0 pouzin  
no aaa new-model  
system mtu routing 1500  
!  
!  
ip domain-name Gr2  
!  
!  
crypto pki trustpoint TP-self-signed-3195865984  
  enrollment selfsigned  
  subject-name cn=IOS-Self-Signed-Certificate-3195865984  
  revocation-check none  
  rsakeypair TP-self-signed-3195865984  
!  
crypto pki trustpoint TP-self-signed-1458790656  
  enrollment selfsigned  
  subject-name cn=IOS-Self-Signed-Certificate-1458790656  
  revocation-check none  
  rsakeypair TP-self-signed-1458790656
```

!
!

crypto pki certificate chain TP-self-signed-3195865984

certificate self-signed 01

3082022B 30820194 A0030201 02020101 300D0609 2A864886 F70D0101 05050030
31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
69666963 6174652D 33313935 38363539 3834301E 170D3933 30333031 30303031
30315A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D33 31393538
36353938 3430819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
8100BE46 F2E878E0 2525F5CE 8E53ACFB 6701F86E DA754B04 FE077D30 FF85B622
E2D31918 C69466A9 368E697E E71E1AA4 819DF46C 5BBCB623 1D5A1220

BBC5E98E

9C2AEED8 418219C0 6D931EEB 5F71C553 3850900F 123A95B8 A8AB755F 043855EB
FBC2E5B7 1995AB21 78535BCD 0FD1CD35 255B6748 B11D6208 1DD655C3

DD03F4F2

E20D0203 010001A3 53305130 0F060355 1D130101 FF040530 030101FF 301F0603
551D2304 18301680 1434D6EA E6AE6840 5AFBC123 183DC49E 5616E27B 02301D06
03551D0E 04160414 34D6EAE6 AE68405A FBC12318 3DC49E56 16E27B02 300D0609
2A864886 F70D0101 05050003 8181008A F66B9907 B650089A F763DF85 838A1EA6
4ADC9644 E053632E AB8B7186 2690565C EB25845A 9B9AE9F4 CA28E5EC

BCD89CDE

51A320EC 9A05D256 0478F0F6 5727FCC8 DFD09895 94238770 C9025049 FE6A9235
E14C10B7 FA722353 170D8970 4A3A1CF7 751199E7 198F2E17 8B223F46 FF4F02F0
0A048A4B 160A5A50 69639FF2 5D1CC7

quit

crypto pki certificate chain TP-self-signed-1458790656

!
!
!
!
!
!

spanning-tree mode rapid-pvst

spanning-tree extend system-id

!

vlan internal allocation policy ascending

!

ip ssh source-interface FastEthernet0/1

!
!
!
!
!

interface Port-channel1

switchport mode trunk

```
!  
interface FastEthernet0/1  
  switchport access vlan 10  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/2  
  switchport access vlan 10  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/3  
  switchport access vlan 10  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/4  
  switchport access vlan 10  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/5  
  switchport access vlan 20  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/6  
  switchport access vlan 20  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/7  
  switchport access vlan 20  
  switchport mode trunk  
  spanning-tree portfast trunk  
!  
interface FastEthernet0/8  
  switchport access vlan 60  
  switchport mode trunk  
!  
interface FastEthernet0/9  
  switchport access vlan 30  
!  
interface FastEthernet0/10  
  switchport access vlan 40  
!
```

```
interface FastEthernet0/11
  switchport access vlan 40
!
interface FastEthernet0/12
!
interface FastEthernet0/13
!
interface FastEthernet0/14
!
interface FastEthernet0/15
!
interface FastEthernet0/16
!
interface FastEthernet0/17
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
  switchport access vlan 60
!
interface FastEthernet0/23
  switchport access vlan 50
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
  switchport access vlan 44
  switchport mode trunk
  channel-group 1 mode active
!
interface GigabitEthernet0/2
  switchport access vlan 60
  switchport mode trunk
  channel-group 1 mode active
!
interface Vlan1
  description natif
  no ip address
  shutdown
!
```

```
interface Vlan10
description Services Logiciels
no ip address
!
interface Vlan20
description Comptabilite
no ip address
!
interface Vlan30
description Equipe Terrain
no ip address
!
interface Vlan40
description Administratif
ip address 10.72.40.102 255.255.255.0
!
interface Vlan50
description Supervision
ip address 192.168.150.1 255.255.255.128
!
interface Vlan60
description Administration informatique
ip address 192.168.160.1 255.255.255.128
!
ip http server
ip http secure-server
tftp-server flash:config.text.renamed
!
vstack
!
line con 0
line vty 0 4
login
line vty 5 15
login
!
mac address-table aging-time 0
end
```


Config SW2:

```
!  
! Last configuration change at 02:44:59 UTC Mon Mar 1 1993  
!  
version 15.0  
no service pad  
no service timestamps debug uptime  
no service timestamps log uptime  
no service password-encryption  
!  
hostname SW2  
!  
boot-start-marker  
boot-end-marker  
!  
!  
no aaa new-model  
system mtu routing 1500  
!  
!  
ip domain-name cisco  
!  
!  
crypto pki trustpoint TP-self-signed-1458781440
```

```

enrollment selfsigned
subject-name cn=IOS-Self-Signed-Certificate-1458781440
revocation-check none
rsakeypair TP-self-signed-1458781440
!
!
crypto pki certificate chain TP-self-signed-1458781440
certificate self-signed 01
  3082022B 30820194 A0030201 02020101 300D0609 2A864886 F70D0101 05050030
  31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
  69666963 6174652D 31343538 37383134 3430301E 170D3933 30333031 30303031
  30315A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
  4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D31 34353837
  38313434 3030819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
  81009900 710DBD52 1FD36D76 6D23A02D 7AA904E9 013823BB 8CD991DA 5C3F5B8A
  27DEC88B 3B49E508 201361B3 D16CA08B 71906C09 F75A7A56 EFD93718 2379A4CD
  94A844F5 BF7B1D82 6F734BC6 6972262C 898B3E68 3D325B4A 94AA9F6A 3EED0EFD
  4B5F306D 9601CD18 631D6DAF 4F2B5190 3DC7DEEF 23EEA763 9B7790EA
CB81E946
  BC3B0203 010001A3 53305130 0F060355 1D130101 FF040530 030101FF 301F0603
  551D2304 18301680 14FDAA5E 4556D1B5 FFFAE965 363D9A17 DA948A40 E2301D06
  03551D0E 04160414 FDAA5E45 56D1B5FF FAE96536 3D9A17DA 948A40E2 300D0609
  2A864886 F70D0101 05050003 8181003D CF7B0C83 7C069FCE 62AE3A44 43DAC634
  C0072E58 DC8DB426 A2EFBDB0 3D91FFC8 AEE18BD4 2E5AA391 214317F8
7A28363E
  8A23B3CF 23C84509 2380B73E 29BC5A54 1E8A7D34 32DAF647 BCA7B894 77292673
  5C8BA553 CEE24C3E E99CE6F0 0906F5EF 57D5078E CD0C94BF C1EBDE42
896311A0
  2C920F2D D7D50A55 E00B77B5 155D05
quit
!
!
!
!
!
!
!
spanning-tree mode rapid-pvst
spanning-tree extend system-id
!
vlan internal allocation policy ascending
!
!
!
!
!
!
!

```

```
interface FastEthernet0/1
  switchport access vlan 10
  switchport mode trunk
  spanning-tree portfast
!
interface FastEthernet0/2
  switchport access vlan 10
  switchport mode trunk
  spanning-tree portfast
!
interface FastEthernet0/3
  switchport access vlan 10
  switchport mode access
  spanning-tree portfast
!
interface FastEthernet0/4
  switchport access vlan 10
  spanning-tree portfast
!
interface FastEthernet0/5
  switchport access vlan 20
  spanning-tree portfast
!
interface FastEthernet0/6
  switchport access vlan 20
  spanning-tree portfast
!
interface FastEthernet0/7
  switchport access vlan 20
  spanning-tree portfast
!
interface FastEthernet0/8
  switchport access vlan 20
  spanning-tree portfast
!
interface FastEthernet0/9
  switchport access vlan 30
  spanning-tree portfast
!
interface FastEthernet0/10
  switchport access vlan 40
  spanning-tree portfast
!
interface FastEthernet0/11
  switchport access vlan 40
  spanning-tree portfast
```

```
!  
interface FastEthernet0/12  
  spanning-tree portfast  
!  
interface FastEthernet0/13  
  switchport access vlan 60  
  switchport mode trunk  
  shutdown  
  spanning-tree portfast  
!  
interface FastEthernet0/14  
  spanning-tree portfast  
!  
interface FastEthernet0/15  
  spanning-tree portfast  
!  
interface FastEthernet0/16  
  spanning-tree portfast  
!  
interface FastEthernet0/17  
  switchport access vlan 60  
  spanning-tree portfast  
!  
interface FastEthernet0/18  
  switchport access vlan 60  
  spanning-tree portfast  
!  
interface FastEthernet0/19  
  switchport access vlan 60  
  switchport mode trunk  
  shutdown  
  spanning-tree portfast  
!  
interface FastEthernet0/20  
  switchport access vlan 60  
  switchport mode trunk  
  shutdown  
  spanning-tree portfast  
!  
interface FastEthernet0/21  
  description Comptabilite  
  spanning-tree portfast  
!  
interface FastEthernet0/22  
  spanning-tree portfast  
!
```

```
interface FastEthernet0/23
 spanning-tree portfast
!
interface FastEthernet0/24
 spanning-tree portfast
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
!
interface Vlan10
 description Services logiciels
 ip address 192.168.110.130 255.255.255.128
!
interface Vlan20
 no ip address
!
interface Vlan30
 description Equipe
 no ip address
!
ip http server
ip http secure-server
 tftp-server flash:config.text.renamed
!
vstack
!
line con 0
line vty 0 4
 login
line vty 5 15
 login
!
mac address-table aging-time 0
end
```

