Projet Galer’IT

Camarade 1, Andres Vallejos, Camarade 2

La société Galer’IT a actuellement 4 sites avec des vlans sur chacun d’entre eux :

Réseau Galer’IT :

Adresse de réseau	192.168.0.0	1100 0000. 1010 1000.0000 0000.0000 0000
Masque	255.255.0.0	1111 1111.1111 1111.0000 0000.0000 0000
Première adresse	192.168.0.1	1100 0000. 1010 1000.0000 0000.0000 0001
Dernière adresse	192.168.255.254	1100 0000. 1010 1000.1111 1111.1111 1110
Adresse de broadcast	192.168.255.255	1100 0000. 1010 1000.1111 1111.1111 1111
Nombre d'adresses IP disponibles	65534	

Paris :

VLAN 7 : Admin /24

Vlan 10 : AD (serveur) /24

Vlan 101 : Imprimante /28

Vlan 200 : Personnes 62 /26

Vlan 201 : Personnes 62 /26

Vlan 202 : Personnes 62 /26 192.168.202.0 192.168.202.0

Vlan 203 : Personnes 62 /26 192.168.203.0 192.168.202.64

Vlan 204: Personnes 62 /26 192.168.204.0 192.168.202.128

Vlan 205: Personnes 62 /26

Vlan 30 : Switch /24

Vlan 230 : Router /24

Londres :

VLAN 9 : Admin /24

Vlan 11: AD /24

Vlan 103 : Imprimante /28

Vlan 152 : serveur (backup) /25

Vlan 208 : Personnes 62 /26

Vlan 209 : Personnes 62 /26

Vlan 210 : Personnes 62 /26

Vlan 31 : Switch /24

Vlan 231 : Router /24

Tokyo :

VLAN 6 : Admin /24

Vlan 104 : Imprimante /28

Vlan 153 : serveur (backup) /24

Vlan 211 : Personnes 25 /26

Vlan 32 : Switch /24

Vlan 232 : Router /24

Toulouse :

VLAN 8 : Admin /24

Vlan 102 : Imprimante /28

Vlan 151 : serveur (backup) /28

Vlan 206 : Personnes 62 /26

Vlan 207 : Personnes 62 /26

Vlan 33 : Switch /24

Vlan 233 : Router /24

Site de Paris

Configuration des Switchs du site Paris :

Switch_Paris_1 (Cœur)

vtp domain Paris
vtp mode server
vtp password cisco
vlan 30
name ssh_paris
exit
vlan 101
vlan 200
vlan 201
vlan 202
vlan 203
vlan 204
vlan 205
vlan 7
vlan 10
interface vlan 30
ip address 192.168.30.1 255.255.255.0
no shutdown
interface range FastEthernet0/23 - 24
switchport mode trunk
switchport nonegotiate
channel-group 1 mode on
no shutdown
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
switchport nonegotiate
channel-group 2 mode on
no shutdown
exit
interface GigabitEthernet 0/1
switchport mode trunk
switchport nonegotiate
end
wr
exit

Switch_Paris_2

vtp domain Paris
vtp mode client
vtp password cisco
interface vlan 30
ip address 192.168.30.2 255.255.255.0
no shutdown
interface range FastEthernet 0/1 -7
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
channel-group 2 mode on
no shutdown
end
wr
exit

Switch_Paris_3

vtp domain Paris
vtp mode client
vtp password cisco
interface vlan 30
ip address 192.168.30.3 255.255.255.0
no shutdown
interface range FastEthernet 0/1-2
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/23 - 24
switchport mode trunk
channel-group 1 mode on
no shutdown
end
wr
exit

Switch Client

vtp domain Paris
vtp mode client
vtp password cisco
interface FastEthernet 0/1
- switchport mode trunk
- switchport nonegotiate

Switch_Paris_4

interface vlan 30
ip address 192.168.30.4 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 7

Switch_Paris_5

interface vlan 30
ip address 192.168.30.5 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 10

Switch_Paris_6

interface vlan 30
ip address 192.168.30.6 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 200

Switch_Paris_7

interface vlan 30
ip address 192.168.30.7 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 201

Switch_Paris_8

interface vlan 30
ip address 192.168.30.8 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 202

Switch_Paris_9

interface vlan 30
ip address 192.168.30.9 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 203

Switch_Paris_10

interface vlan 30
ip address 192.168.30.10 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 204

Switch_Paris_11

interface vlan 30
ip address 192.168.30.11 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 205

Switch_Paris_12

interface vlan 30
ip address 192.168.30.12 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 101

Switch_Paris_6

Configuration SSH sur chaque Switch du site Paris

```
ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 5 15
login local
transport input ssh
exit
line vty 0 4
login local
transport input ssh
exit
service password-encryption
interface vlan 30
ip default-gateway 192.168.30.254
end
wr
exit
```

Configuration du router sur le de site Paris :

Configuration router Paris R1

interface gigabitethernet 0/1.200
encapsulation dot1Q 200
ip address 192.168.200.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.201
encapsulation dot1Q 201
ip address 192.168.201.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.202
encapsulation dot1Q 202
ip address 192.168.202.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.203
encapsulation dot1Q 203
ip address 192.168.203.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.204
encapsulation dot1Q 204
ip address 192.168.204.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.205
encapsulation dot1Q 205
ip address 192.168.205.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.101
encapsulation dot1Q 101
ip address 192.168.101.14 255.255.255.240
no shutdown
exit
interface gigabitethernet 0/1.7
encapsulation dot1Q 7
ip address 192.168.7.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.10
encapsulation dot1Q 10
ip address 192.168.10.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.30
encapsulation dot1Q 30
ip address 192.168.30.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1
no shutdown
exit
interface serial 0/3/0
ip address 10.0.0.1 255.255.255.252
exit
interface serial 0/3/1
ip address 14.0.150.2 255.255.255.252
exit
ip route 192.168.206.0 255.255.255.192 14.0.150.1
ip route 192.168.207.0 255.255.255.192 14.0.150.1
ip route 192.168.102.0 255.255.255.240 14.0.150.1
ip route 192.168.151.0 255.255.255.0 14.0.150.1
ip route 192.168.8.0 255.255.255.0 14.0.150.1
ip route 192.168.33.0 255.255.255.0 14.0.150.1
ip route 192.168.208.0 255.255.255.192 10.0.0.2
ip route 192.168.209.0 255.255.255.192 10.0.0.2
ip route 192.168.210.0 255.255.255.192 10.0.0.2
ip route 192.168.103.0 255.255.255.240 10.0.0.2
ip route 192.168.9.0 255.255.255.0 10.0.0.2
ip route 192.168.11.0 255.255.255.0 10.0.0.2
ip route 192.168.31.0 255.255.255.0 10.0.0.2
ip route 192.168.152.0 255.255.255.0 10.0.0.2
ip route 192.168.211.0 255.255.255.192 14.0.150.1
ip route 192.168.104.0 255.255.255.240 14.0.150.1
ip route 192.168.6.0 255.255.255.0 14.0.150.1
ip route 192.168.32.0 255.255.255.0 14.0.150.1
ip route 192.168.153.0 255.255.255.0 14.0.150.1
ip route 192.168.231.0 255.255.255.0 10.0.0.2
ip route 192.168.233.0 255.255.255.0 14.0.150.1
ip route 192.168.232.0 255.255.255.0 14.0.150.1
end
wr
exit

Configuration router Paris R1

```
en
conf t
hostname R1
ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 0 4
login local
transport input ssh
exit
line vty 5 15
login local
transport input ssh
exit
service password-encryption
interface GigabitEthernet0/1.230
encapsulation dot1Q 230
ip address 192.168.230.1 255.255.255.0
no shutdown
exit
end
wr
exit
```

Site de Londres

Configuration des Switchs du site Londres:

Switch_Londres_1 (Cœur)

```
enable
conf t
vtp domain Londres
vtp mode server
vtp password cisco
vlan 31
name ssh_londres
exit
vlan 103
vlan 208
vlan 209
vlan 210
vlan 9
vlan 11
vlan 152
interface vlan 31
ip address 192.168.31.1 255.255.255.0
no shutdown
interface range FastEthernet0/23 - 24
switchport mode trunk
switchport nonegotiate
channel-group 1 mode on
no shutdown
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
switchport nonegotiate
channel-group 2 mode on
no shutdown
exit
interface GigabitEthernet 0/1
switchport mode trunk
switchport nonegotiate
end
exit
```

Switch_ Londres _2

```
vtp domain Londres
vtp mode client
vtp password cisco
interface vlan 31
ip address 192.168.31.2 255.255.255.0
no shutdown
interface range FastEthernet 0/1 -4
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
channel-group 2 mode on
no shutdown
end
wr
exit
```

Switch_ Londres _3

```
vtp domain Londres
vtp mode client
vtp password cisco
interface vlan 31
ip address 192.168.31.3 255.255.255.0
no shutdown
interface range FastEthernet 0/1-3
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/23 - 24
switchport mode trunk
channel-group 1 mode on
no shutdown
end
wr
exit
```

Switch Client

vtp domain Londres
vtp mode client
vtp password cisco
interface FastEthernet 0/1
- switchport mode trunk
- switchport nonegotiate

Switch_Londres_4

interface vlan 31
ip address 192.168.31.4 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 152

Switch_Londres_5

interface vlan 31
ip address 192.168.31.5 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 11

Switch_Londres_6

interface vlan 31
ip address 192.168.31.6 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 9

Switch_Londres_7

interface vlan 31
ip address 192.168.31.7 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 103

Switch_Londres_8

interface vlan 31
ip address 192.168.31.8 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 208

Switch_Londres_9

interface vlan 31
ip address 192.168.31.9 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 209

Switch_Londres_10

interface vlan 31
ip address 192.168.31.10 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 210

Configuration SSH sur chaque Switch du site Londres

ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 5 15
login local
transport input ssh
exit
line vty 0 4
login local
transport input ssh
exit
service password-encryption
interface vlan 31
ip default-gateway 192.168.31.254
end
wr
exit

Configuration du router sur le de site Londres :

Configuration router Londres R2

interface gigabitethernet 0/1.208
encapsulation dot1Q 208
ip address 192.168.208.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.209
encapsulation dot1Q 209
ip address 192.168.209.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.210
encapsulation dot1Q 210
ip address 192.168.210.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.103
encapsulation dot1Q 103
ip address 192.168.103.14 255.255.255.240
no shutdown
exit
interface gigabitethernet 0/1.9
encapsulation dot1Q 9
ip address 192.168.9.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.11
encapsulation dot1Q 11
ip address 192.168.11.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.31
encapsulation dot1Q 31
ip address 192.168.31.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.152
encapsulation dot1Q 152
ip address 192.168.152.126 255.255.255.128
no shutdown
exit
interface gigabitethernet 0/1
no shutdown
exit
interface serial 0/3/0
ip address 10.0.0.2 255.255.255.252
exit
interface serial 0/3/1
ip address 10.0.10.1 255.255.255.252
exit
ip route 192.168.200.0 255.255.255.192 10.0.0.1
ip route 192.168.201.0 255.255.255.192 10.0.0.1
ip route 192.168.202.0 255.255.255.192 10.0.0.1
ip route 192.168.203.0 255.255.255.192 10.0.0.1
ip route 192.168.204.0 255.255.255.192 10.0.0.1
ip route 192.168.205.0 255.255.255.192 10.0.0.1
ip route 192.168.101.0 255.255.255.240 10.0.0.1
ip route 192.168.7.0 255.255.255.0 10.0.0.1
ip route 192.168.10.0 255.255.255.0 10.0.0.1
ip route 192.168.30.0 255.255.255.0 10.0.0.1
ip route 192.168.211.0 255.255.255.192 10.0.10.2
ip route 192.168.104.0 255.255.255.240 10.0.10.2
ip route 192.168.6.0 255.255.255.0 10.0.10.2
ip route 192.168.32.0 255.255.255.0 10.0.10.2
ip route 192.168.153.0 255.255.255.0 10.0.10.2
ip route 192.168.206.0 255.255.255.192 10.0.0.1
ip route 192.168.207.0 255.255.255.192 10.0.0.1
ip route 192.168.102.0 255.255.255.240 10.0.0.1
ip route 192.168.151.0 255.255.255.0 10.0.0.1
ip route 192.168.8.0 255.255.255.0 10.0.0.1
ip route 192.168.33.0 255.255.255.0 10.0.0.1
ip route 192.168.230.0 255.255.255.0 10.0.0.1
ip route 192.168.233.0 255.255.255.0 10.0.0.1
ip route 192.168.232.0 255.255.255.0 10.0.10.2
end
wr
exit

Configuration router Londres R2

```
en
conf t
hostname R2
ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 0 4
login local
transport input ssh
exit
line vty 5 15
login local
transport input ssh
exit
service password-encryption
interface GigabitEthernet0/1.231
encapsulation dot1Q 231
ip address 192.168.231.1 255.255.255.0
no shutdown
exit
end
wr
exit
```

Site de Tokyo

Configuration des Switchs du site Tokyo:

Switch_Tokyo_1 (Cœur)

```
vtp domain Tokyo
vtp mode server
vtp password cisco
vlan 32
name ssh_tokyo
vlan 104
vlan 211
vlan 6
vlan 153
interface vlan 32
ip address 192.168.32.1 255.255.255.0
no shutdown
interface range FastEthernet0/23 - 24
switchport mode trunk
switchport nonegotiate
channel-group 1 mode on
no shutdown
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
switchport nonegotiate
channel-group 2 mode on
no shutdown
exit
interface GigabitEthernet 0/1
switchport mode trunk
switchport nonegotiate
end
exit
```

Switch_ Tokyo _2

```
vtp domain Tokyo
vtp mode client
vtp password cisco
interface vlan 32
ip address 192.168.32.2 255.255.255.0
no shutdown
interface range FastEthernet 0/2 - 3
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
channel-group 2 mode on
no shutdown
end
wr
exit
```

Switch_ Tokyo _3

```
vtp domain Tokyo
vtp mode client
vtp password cisco
interface vlan 32
ip address 192.168.32.3 255.255.255.0
no shutdown
interface range FastEthernet 0/2 - 3
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/23 - 24
switchport mode trunk
channel-group 1 mode on
no shutdown
end
wr
exit
```

<table>
<tr><th colspan="2">Switch Client</th></tr>
<tr><td colspan="2">vtp domain Tokyo
vtp mode client
vtp password cisco
interface FastEthernet 0/1
- switchport mode trunk
- switchport nonegotiate</td></tr>
<tr><th>Switch_Tokyo_4</th><th>Switch_Tokyo_5</th></tr>
<tr><td>interface vlan 32
ip address 192.168.32.4 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 6</td><td>interface vlan 32
ip address 192.168.32.5 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 153</td></tr>
<tr><th>Switch_Tokyo_6</th><th>Switch_Tokyo_7</th></tr>
<tr><td>interface vlan 32
ip address 192.168.32.6 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 104</td><td>interface vlan 32
ip address 192.168.32.7 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 211</td></tr>
</table>

Configuration SSH sur chaque Switch du site Tokyo

ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 5 15
login local
transport input ssh
exit
line vty 0 4
login local
transport input ssh
exit
service password-encryption
interface vlan 32
ip default-gateway 192.168.32.254
end
wr
exit

Configuration du router sur le de site Tokyo :

Configuration router Tokyo R3	
interface gigabitethernet 0/1.6	**ip route 192.168.209.0 255.255.255.192 10.0.10.1**
encapsulation dot1Q 6	**ip route 192.168.208.0 255.255.255.192 10.0.10.1**
ip address 192.168.6.254 255.255.255.0	**ip route 192.168.210.0 255.255.255.192 10.0.10.1**
no shutdown	**ip route 192.168.103.0 255.255.255.240 10.0.10.1**
exit	**ip route 192.168.9.0 255.255.255.0 10.0.10.1**
interface gigabitethernet 0/1.153	**ip route 192.168.31.0 255.255.255.0 10.0.10.1**
encapsulation dot1Q 153	**ip route 192.168.11.0 255.255.255.192 10.0.10.1**
ip address 192.168.153.254 255.255.255.0	**ip route 192.168.152.0 255.255.255.0 10.0.10.1**
no shutdown	**ip route 192.168.206.0 255.255.255.192 11.0.100.2**
exit	**ip route 192.168.207.0 255.255.255.192 11.0.100.2**
interface gigabitethernet 0/1.211	**ip route 192.168.102.0 255.255.255.240 11.0.100.2**
encapsulation dot1Q 211	**ip route 192.168.8.0 255.255.255.0 11.0.100.2**
ip address 192.168.211.62 255.255.255.192	**ip route 192.168.33.0 255.255.255.0 11.0.100.2**
no shutdown	**ip route 192.168.151.0 255.255.255.0 11.0.100.2**
exit	**ip route 192.168.200.0 255.255.255.192 10.0.10.1**
interface gigabitethernet 0/1.104	**ip route 192.168.201.0 255.255.255.192 10.0.10.1**
encapsulation dot1Q 104	**ip route 192.168.202.0 255.255.255.192 10.0.10.1**
ip address 192.168.104.14 255.255.255.240	**ip route 192.168.203.0 255.255.255.192 10.0.10.1**
no shutdown	**ip route 192.168.204.0 255.255.255.192 10.0.10.1**
exit	**ip route 192.168.205.0 255.255.255.192 10.0.10.1**
interface gigabitethernet 0/1.32	**ip route 192.168.101.0 255.255.255.240 10.0.10.1**
encapsulation dot1Q 32	**ip route 192.168.7.0 255.255.255.0 10.0.10.1**
ip address 192.168.32.254 255.255.255.0	**ip route 192.168.10.0 255.255.255.0 10.0.10.1**
no shutdown	**ip route 192.168.30.0 255.255.255.0 10.0.10.1**
exit	**ip route 192.168.231.0 255.255.255.0 10.0.10.1**
interface gigabitethernet 0/1	**ip route 192.168.230.0 255.255.255.0 10.0.10.1**
no shutdown	**ip route 192.168.233.0 255.255.255.0 11.0.100.2**
exit	end
interface serial 0/3/0	wr
ip address 11.0.100.1 255.255.255.252	exit
exit	
interface serial 0/3/1	
ip address 10.0.10.2 255.255.255.252	
exit	

Configuration router Tokyo R3

en
conf t
hostname R3
ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 0 4
login local
transport input ssh
exit
line vty 5 15
login local
transport input ssh
exit
service password-encryption
interface GigabitEthernet0/1.232
encapsulation dot1Q 232
ip address 192.168.232.1 255.255.255.0
no shutdown
exit
end
wr
exit

Site de Toulouse

Configuration des Switchs du site Toulouse:

Switch_Toulouse_1 (Cœur)

```
enable
conf t
vtp domain Toulouse
vtp mode server
vtp password cisco
vlan 33
name ssh_toulouse
exit
vlan 102
vlan 206
vlan 207
vlan 8
vlan 151
interface vlan 33
ip address 192.168.33.1 255.255.255.0
no shutdown
interface range FastEthernet0/23 - 24
switchport mode trunk
switchport nonegotiate
channel-group 1 mode on
no shutdown
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
switchport nonegotiate
channel-group 2 mode on
no shutdown
exit
interface GigabitEthernet 0/1
switchport mode trunk
switchport nonegotiate
end
exit
```

Switch_Toulouse_2

```
vtp domain Toulouse
vtp mode client
vtp password cisco
interface vlan 33
ip address 192.168.33.2 255.255.255.0
no shutdown
interface range FastEthernet 0/1 – 3
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/23 - 24
switchport mode trunk
channel-group 2 mode on
no shutdown
end
wr
exit
```

Switch_Toulouse_3

```
vtp domain Toulouse
vtp mode client
vtp password cisco
interface vlan 33
ip address 192.168.33.3 255.255.255.0
no shutdown
interface range FastEthernet 0/1-3
switchport mode trunk
switchport nonegotiate
exit
interface range FastEthernet0/21 - 22
switchport mode trunk
channel-group 1 mode on
no shutdown
end
wr
exit
```

<table>
<tr><th colspan="2">Switch Client</th></tr>
<tr><td colspan="2">vtp domain Toulouse
vtp mode client
vtp password cisco
interface FastEthernet 0/1
- switchport mode trunk
- switchport nonegotiate</td></tr>
<tr><th>Switch_Toulouse_4</th><th>Switch_Toulouse_5</th></tr>
<tr><td>interface vlan 33
ip address 192.168.33.4 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 8</td><td>interface vlan 33
ip address 192.168.33.5 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 151</td></tr>
<tr><th>Switch_Toulouse_6</th><th>Switch_Toulouse_7</th></tr>
<tr><td>interface vlan 33
ip address 192.168.33.6 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 206</td><td>interface vlan 33
ip address 192.168.33.7 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 207</td></tr>
<tr><th>Switch_Toulouse_8</th><th></th></tr>
<tr><td>interface vlan 33
ip address 192.168.33.8 255.255.255.0
no shutdown
interface FastEthernet 0/2
- switchport mode access
- switchport access vlan 102</td><td></td></tr>
</table>

Configuration SSH sur chaque Switch du site Toulouse

ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 5 15
login local
transport input ssh
exit
line vty 0 4
login local
transport input ssh
exit
service password-encryption
interface vlan 33
ip default-gateway 192.168.33.254
end
wr
exit

Configuration du router sur le de site Toulouse :

Configuration router Toulouse R4

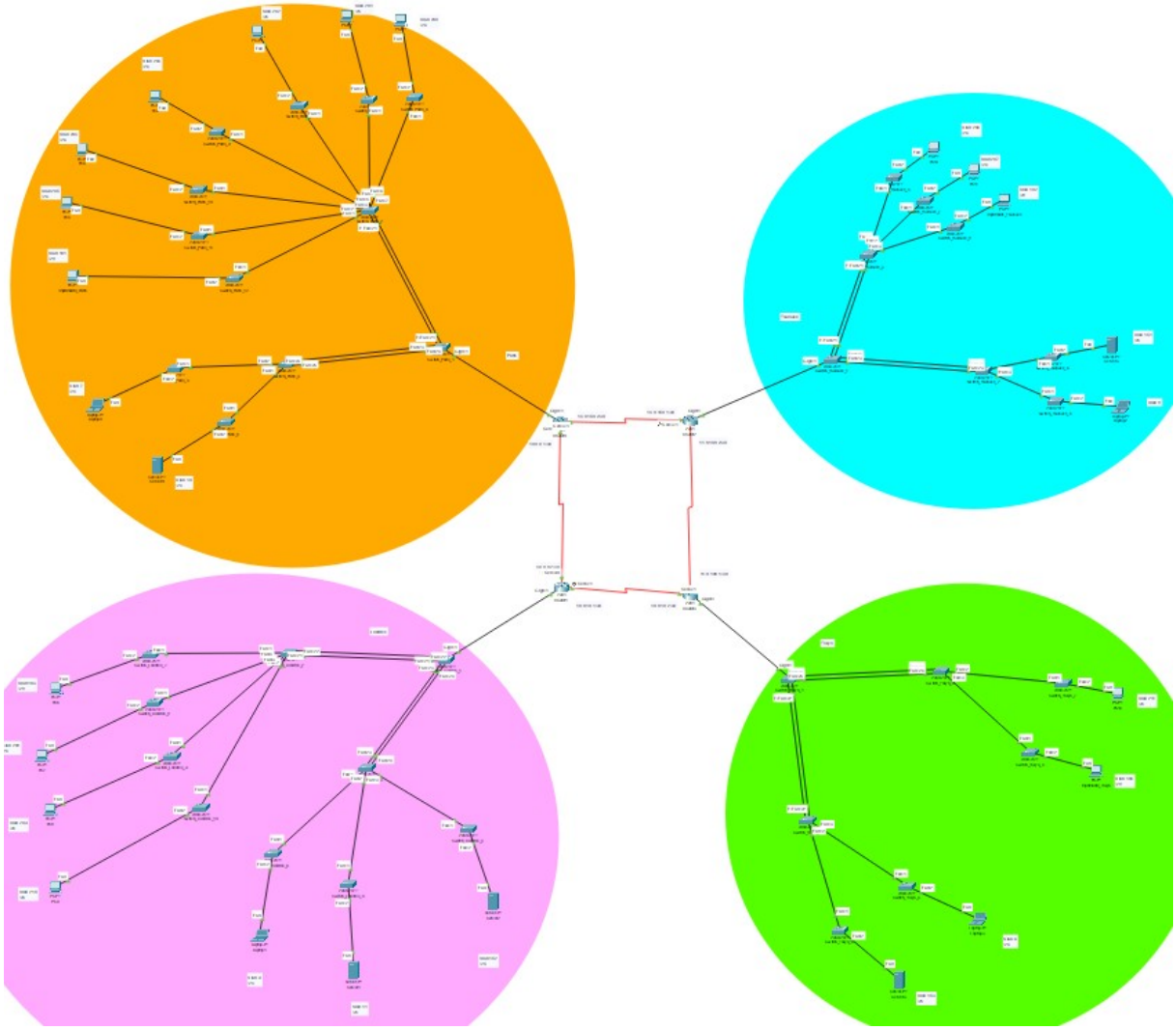
```
en
conf t
interface gigabitethernet 0/1.206
encapsulation dot1Q 206
ip address 192.168.206.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.207
encapsulation dot1Q 207
ip address 192.168.207.62 255.255.255.192
no shutdown
exit
interface gigabitethernet 0/1.102
encapsulation dot1Q 102
ip address 192.168.102.14 255.255.255.240
no shutdown
exit
interface gigabitethernet 0/1.8
encapsulation dot1Q 8
ip address 192.168.8.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.151
encapsulation dot1Q 151
ip address 192.168.151.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1.33
encapsulation dot1Q 33
ip address 192.168.33.254 255.255.255.0
no shutdown
exit
interface gigabitethernet 0/1
no shutdown
exit
interface serial 0/3/0
ip address 11.0.100.2 255.255.255.252
exit
interface serial 0/3/1
ip address 14.0.150.1 255.255.255.252
exit
ip route 192.168.209.0 255.255.255.192 11.0.100.1
ip route 192.168.208.0 255.255.255.192 11.0.100.1
ip route 192.168.210.0 255.255.255.192 11.0.100.1
ip route 192.168.103.0 255.255.255.240 11.0.100.1
ip route 192.168.9.0 255.255.255.0 11.0.100.1
ip route 192.168.31.0 255.255.255.0 11.0.100.1
ip route 192.168.11.0 255.255.255.192 11.0.100.1
ip route 192.168.152.0 255.255.255.0 11.0.100.1
ip route 192.168.200.0 255.255.255.192 14.0.150.2
ip route 192.168.201.0 255.255.255.192 14.0.150.2
ip route 192.168.202.0 255.255.255.192 14.0.150.2
ip route 192.168.203.0 255.255.255.192 14.0.150.2
ip route 192.168.204.0 255.255.255.192 14.0.150.2
ip route 192.168.205.0 255.255.255.192 14.0.150.2
ip route 192.168.101.0 255.255.255.240 14.0.150.2
ip route 192.168.7.0 255.255.255.0 14.0.150.2
ip route 192.168.10.0 255.255.255.0 14.0.150.2
ip route 192.168.30.0 255.255.255.0 14.0.150.2
ip route 192.168.211.0 255.255.255.192 11.0.100.1
ip route 192.168.104.0 255.255.255.240 11.0.100.1
ip route 192.168.6.0 255.255.255.0 11.0.100.1
ip route 192.168.32.0 255.255.255.0 11.0.100.1
ip route 192.168.153.0 255.255.255.0 11.0.100.1
ip route 192.168.231.0 255.255.255.0 11.0.100.1
ip route 192.168.232.0 255.255.255.0 11.0.100.1
ip route 192.168.230.0 255.255.255.0 14.0.150.2
end
wr
exit
```

Configuration router Toulouse R4

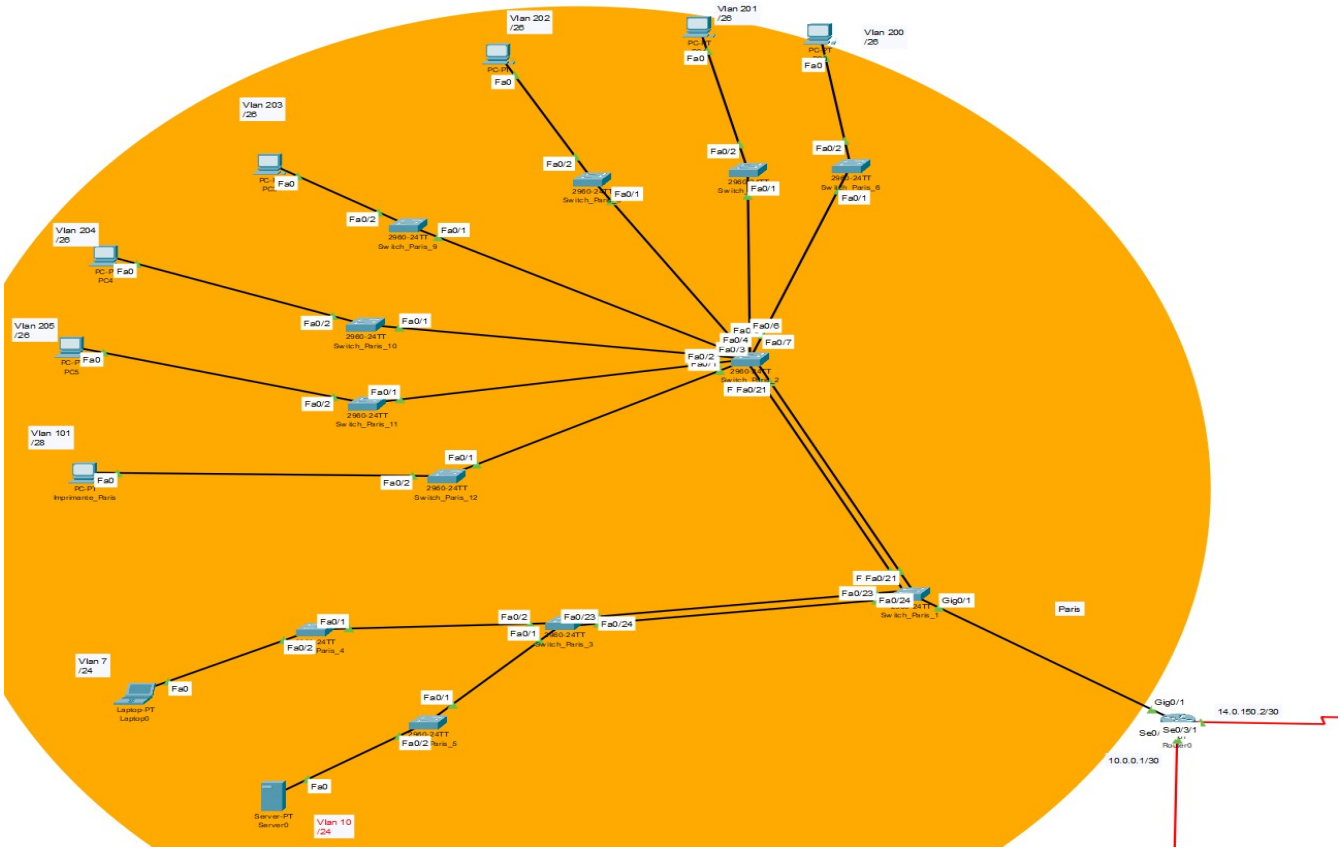
```
en
conf t
hostname R4
ip domain-name Galer.com
enable password cisco
username cisco password cisco
line console 0
password cisco
login local
exit
crypto key generate rsa general-keys modulus 1024
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
line vty 0 4
login local
transport input ssh
exit
line vty 5 15
login local
transport input ssh
exit
service password-encryption
interface GigabitEthernet0/1.233
encapsulation dot1Q 233
ip address 192.168.233.1 255.255.255.0
no shutdown
exit
end
wr
exit
```

Capture d’écran de l’Infrastructure Galer’IT

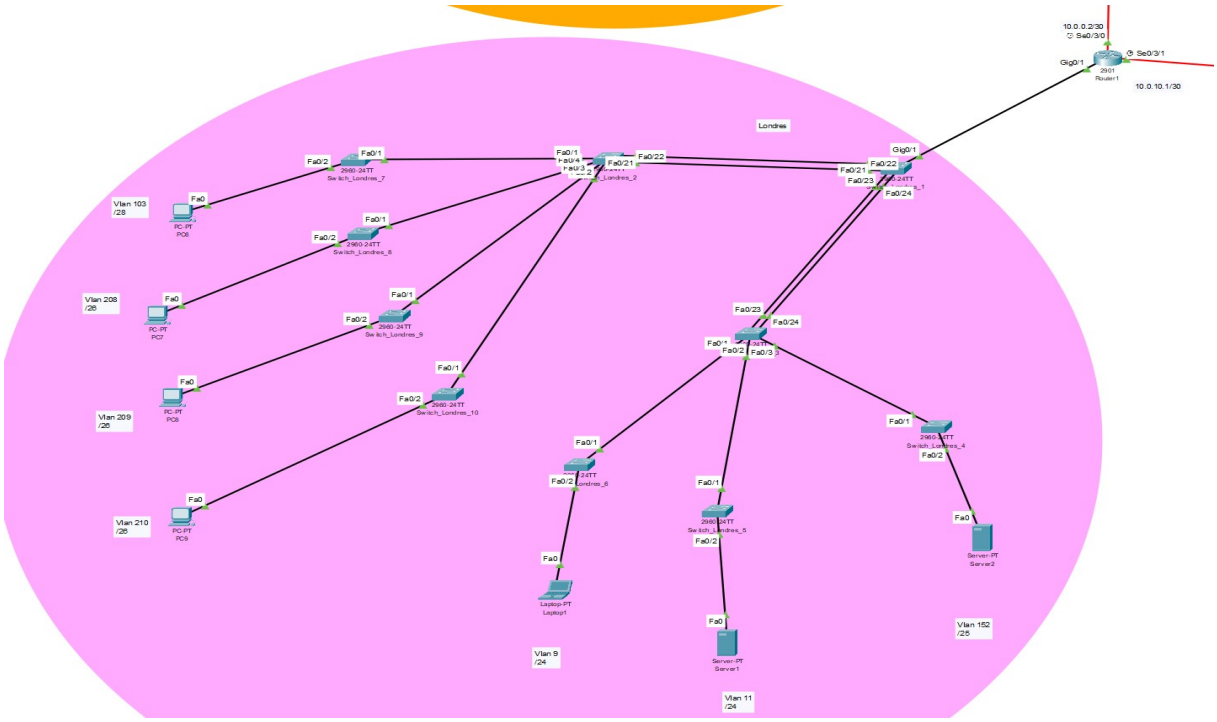
Galer’IT



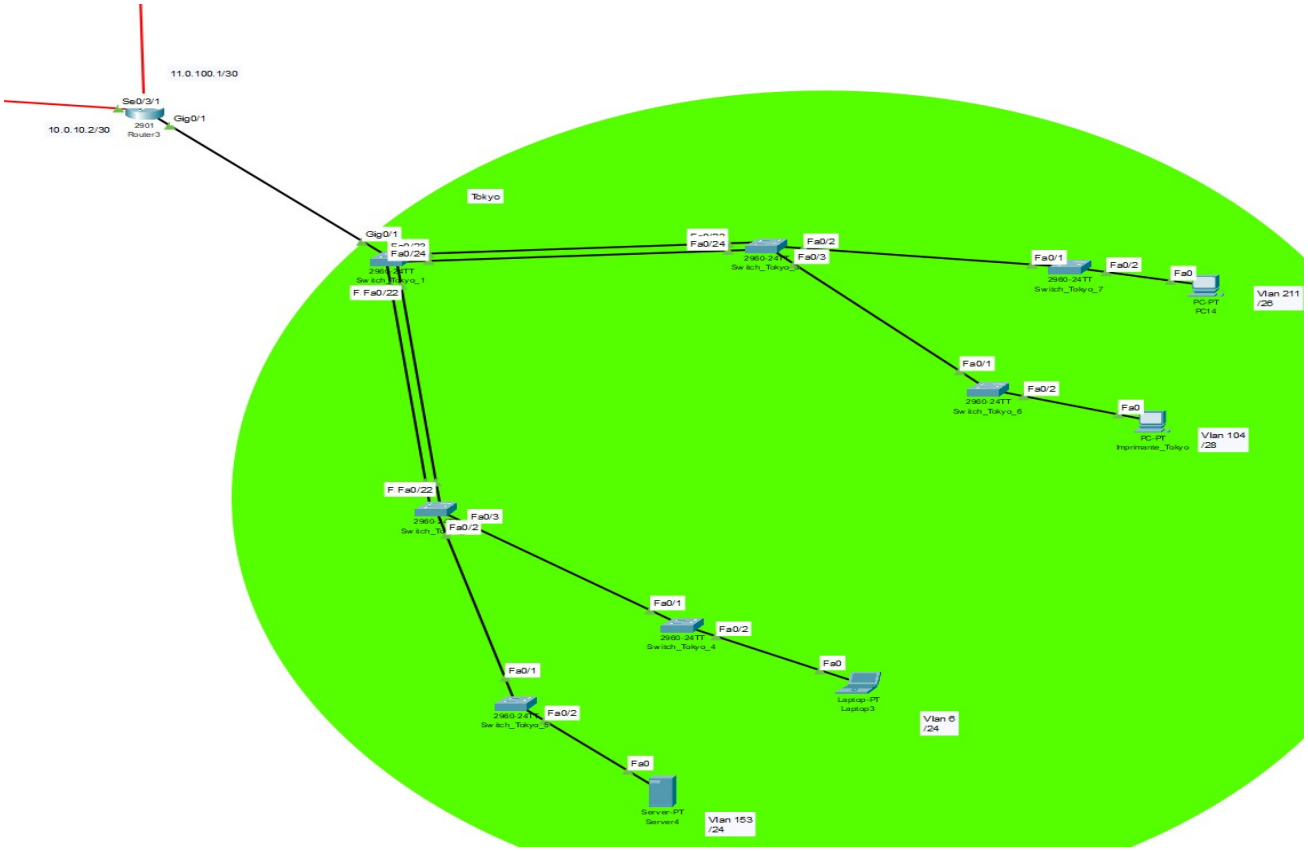
Paris



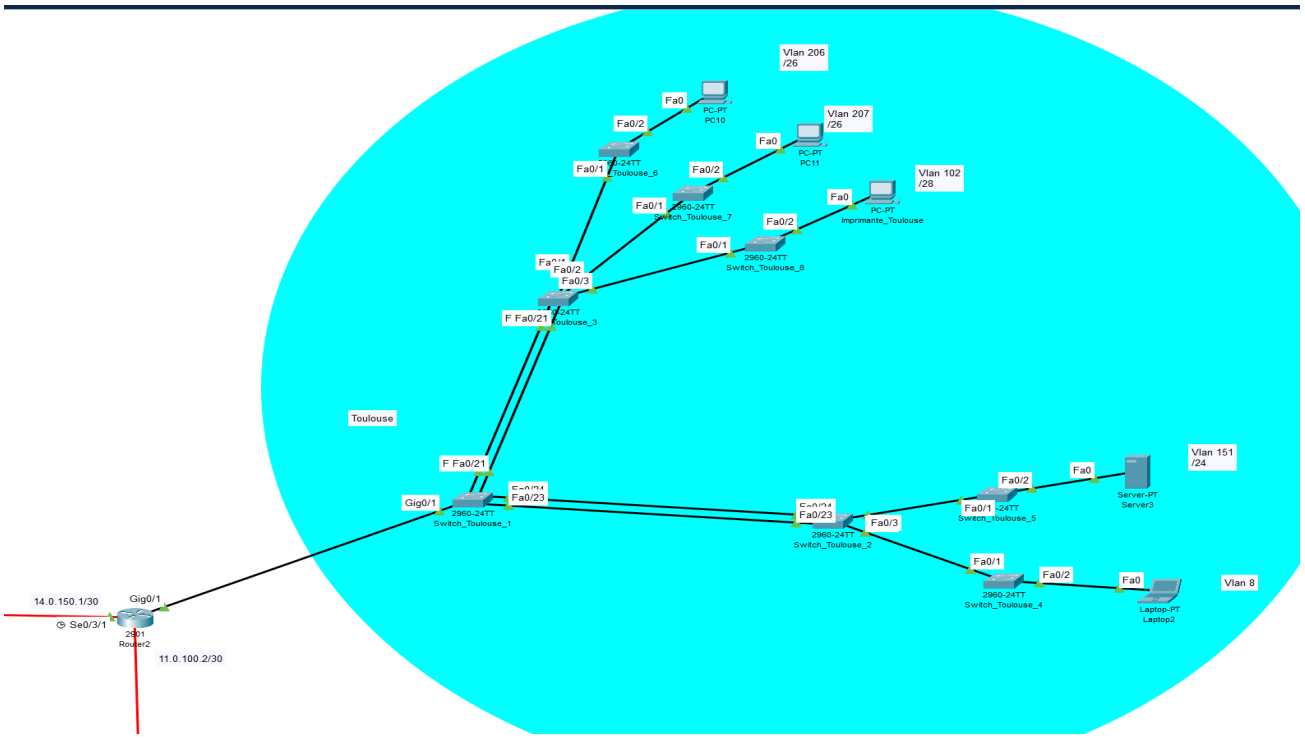
Londres



Tokyo

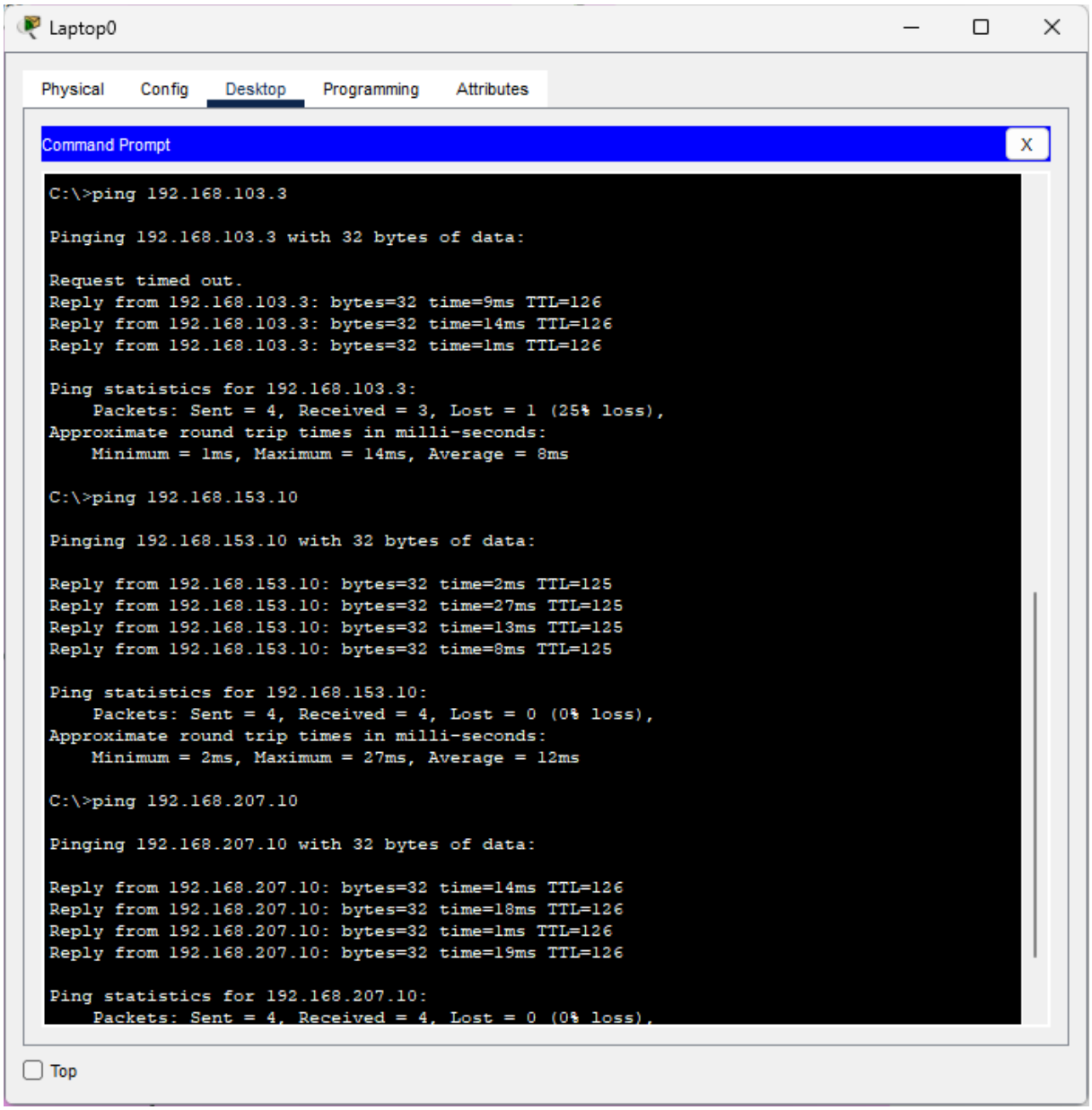


Toulouse

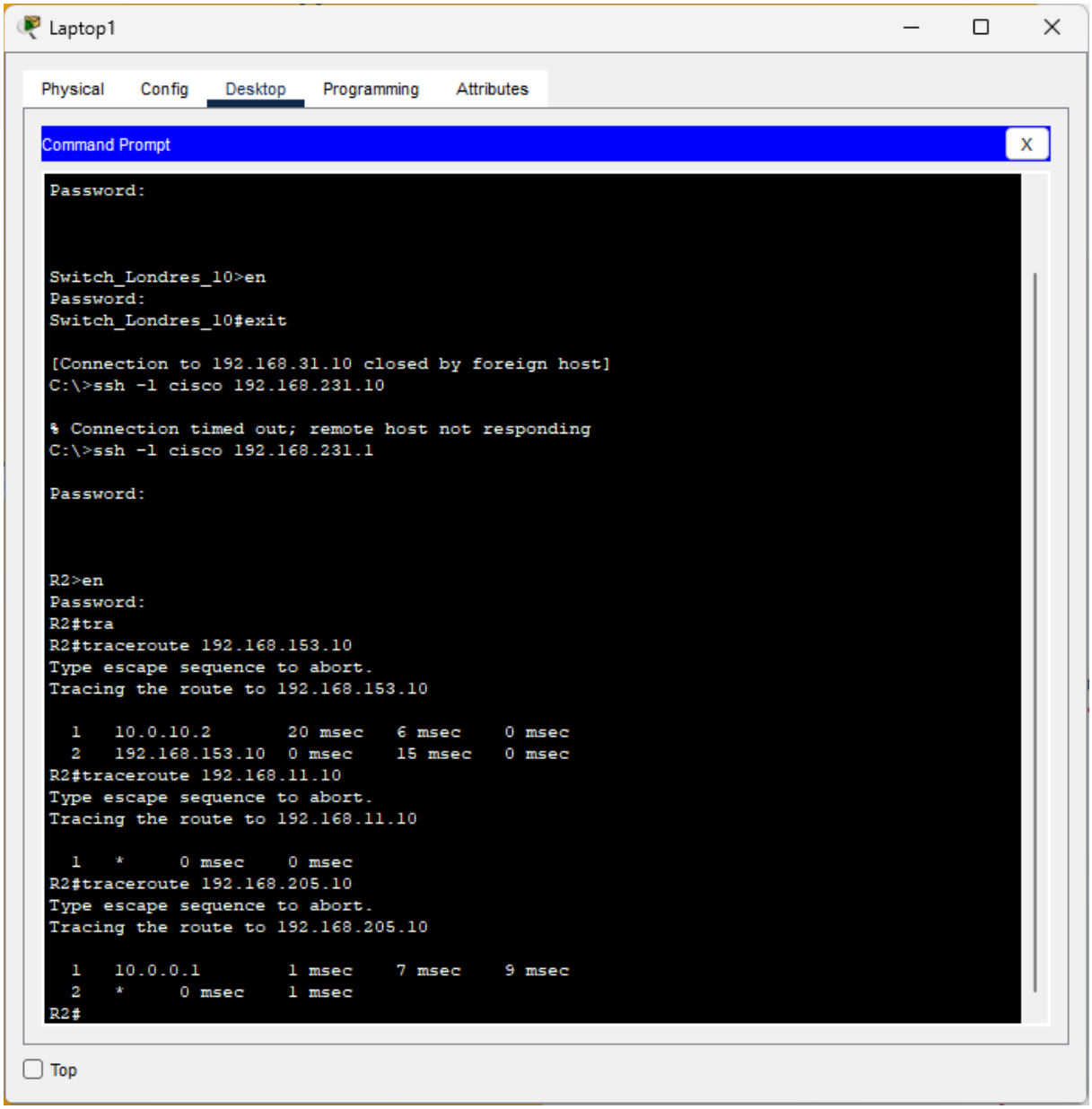


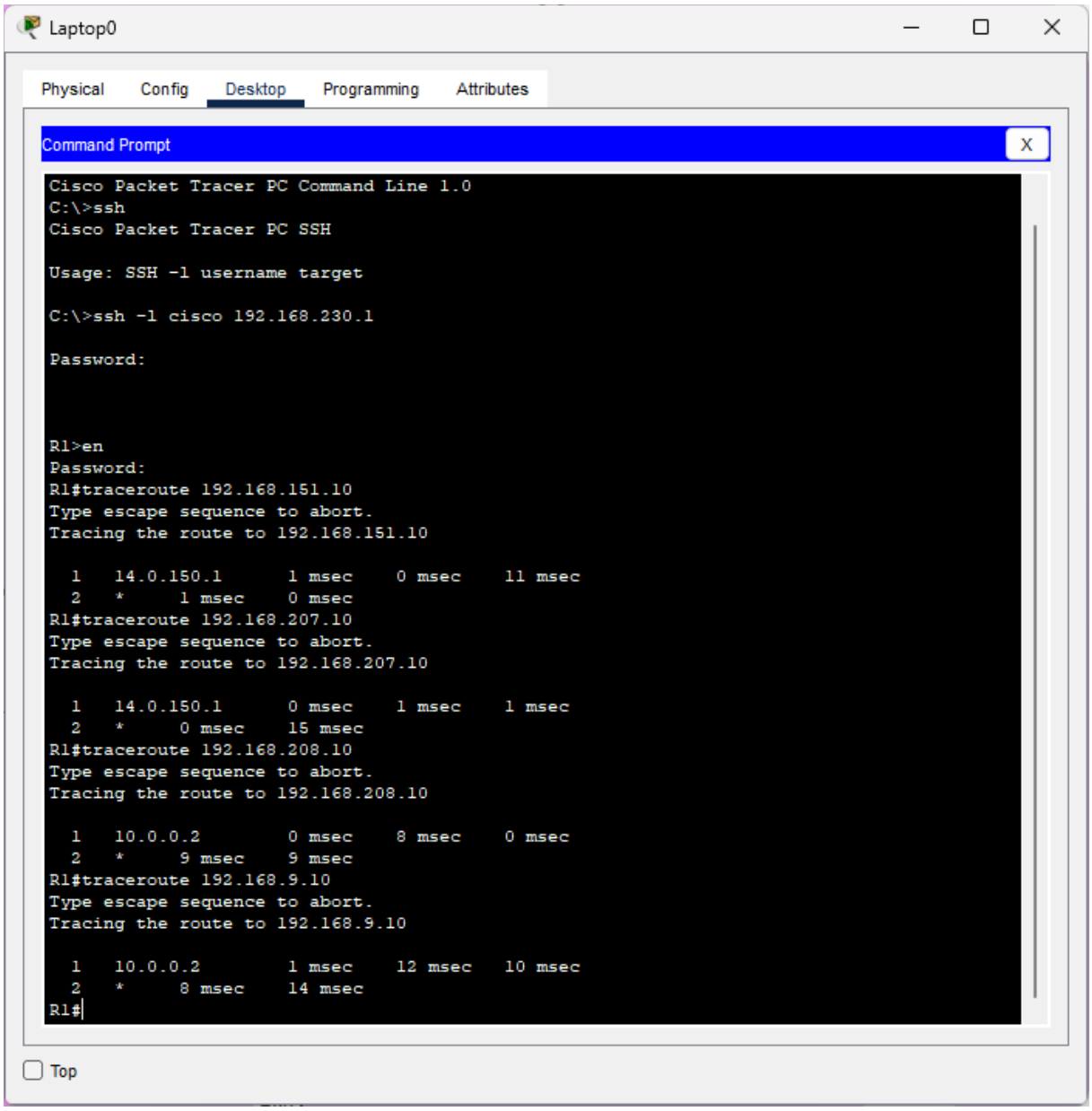
Capture d’écran pings PC Admin Paris vers les autres sites

Pings des Vlan103 (Londres), Vlan 153 (Tokyo), Vlan 207 (Toulouse) depuis le Vlan7 qui est le Vlan administrateur de Paris

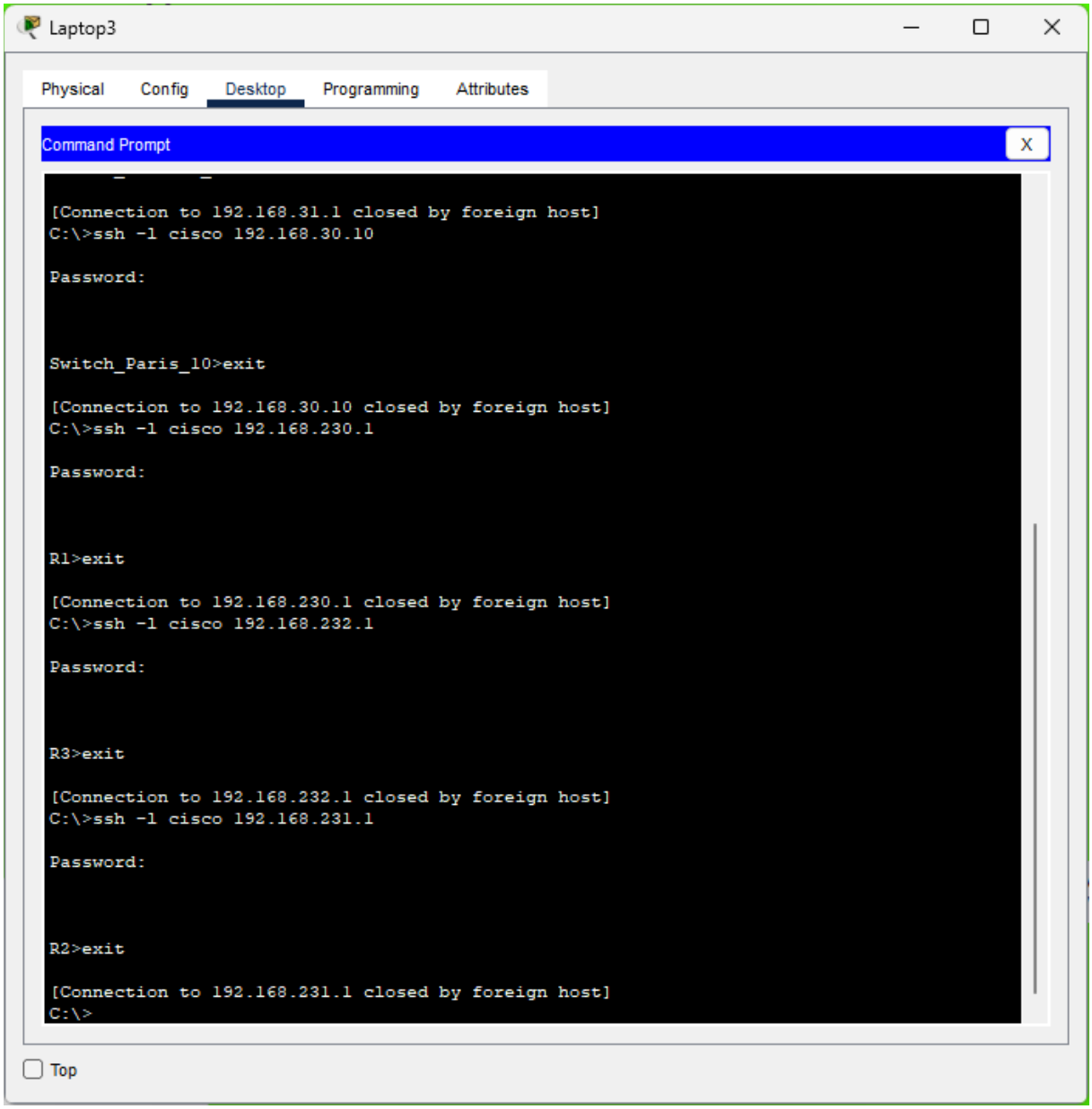


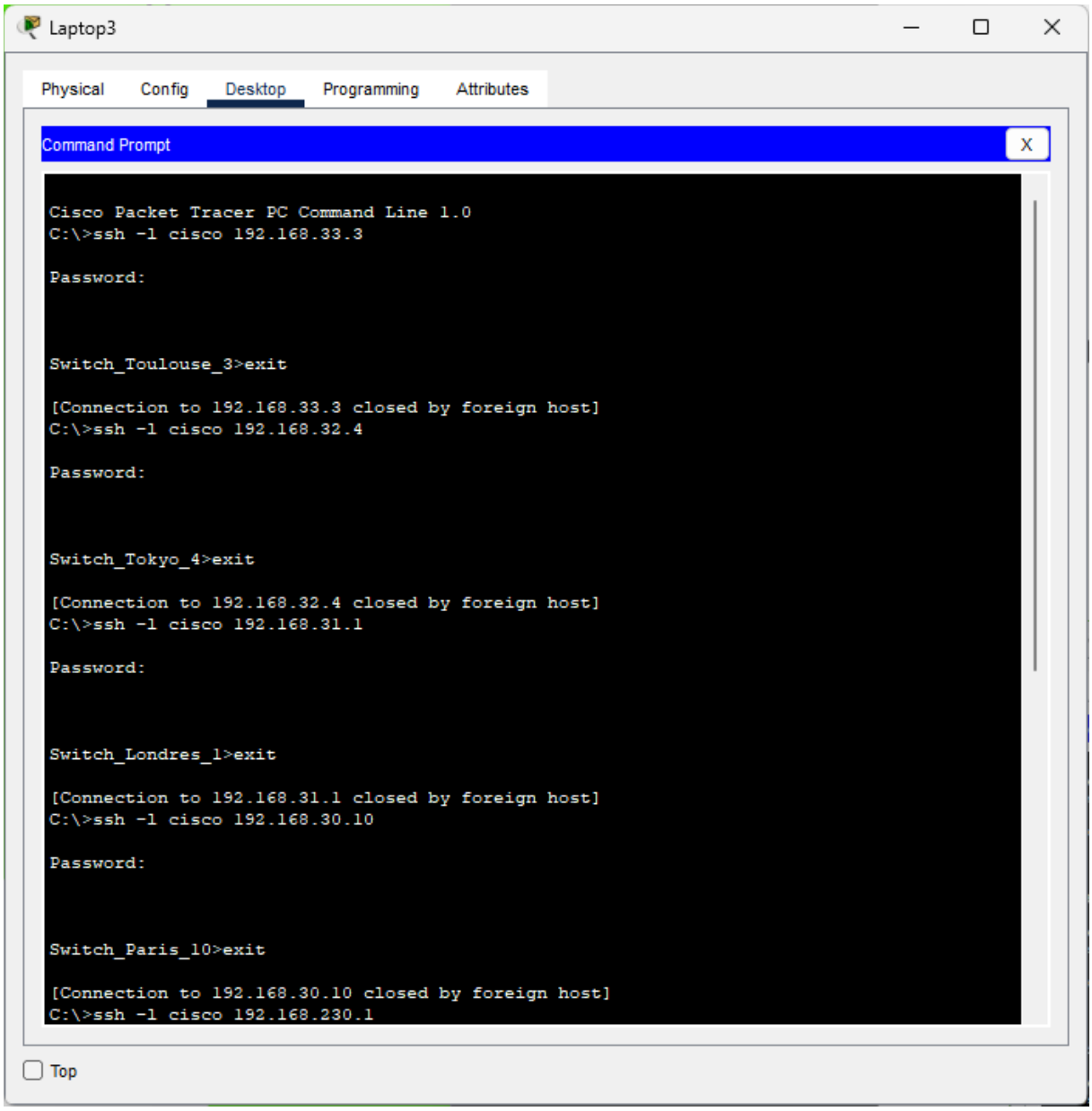
Traceroute


Laptop1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Password:
Switch_Londres_10>en
Password:
Switch_Londres_10#exit
[Connection to 192.168.31.10 closed by foreign host]
C:\>ssh -l cisco 192.168.231.10
% Connection timed out; remote host not responding
C:\>ssh -l cisco 192.168.231.1
Password:
R2>en
Password:
R2#tra
R2#traceroute 192.168.153.10
Type escape sequence to abort.
Tracing the route to 192.168.153.10
1 10.0.10.2 20 msec 6 msec 0 msec
2 192.168.153.10 0 msec 15 msec 0 msec
R2#traceroute 192.168.11.10
Type escape sequence to abort.
Tracing the route to 192.168.11.10
1 * 0 msec 0 msec
R2#traceroute 192.168.205.10
Type escape sequence to abort.
Tracing the route to 192.168.205.10
1 10.0.0.1 1 msec 7 msec 9 msec
2 * 0 msec 1 msec
R2#
Top



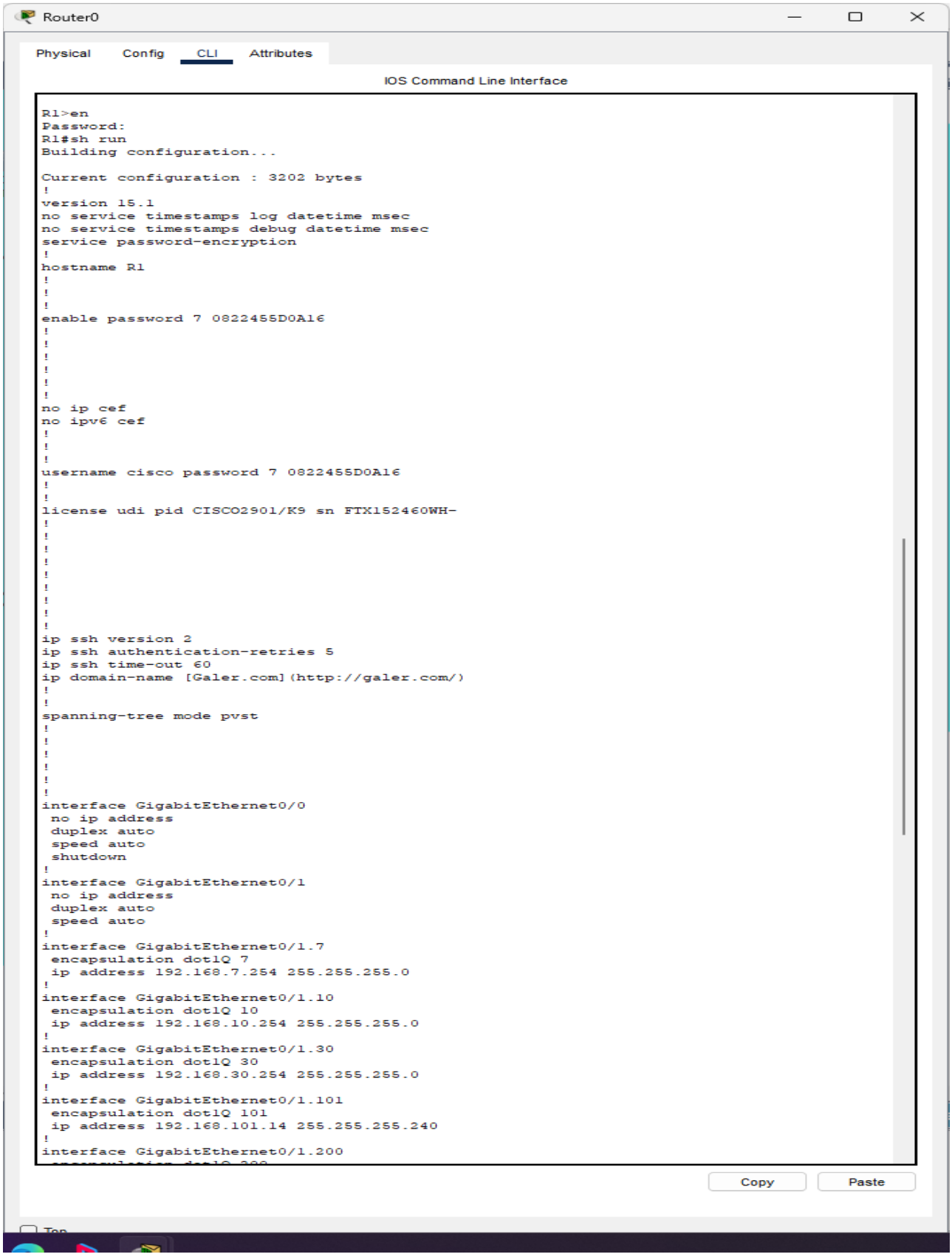
Connexion SSH sur différents équipements

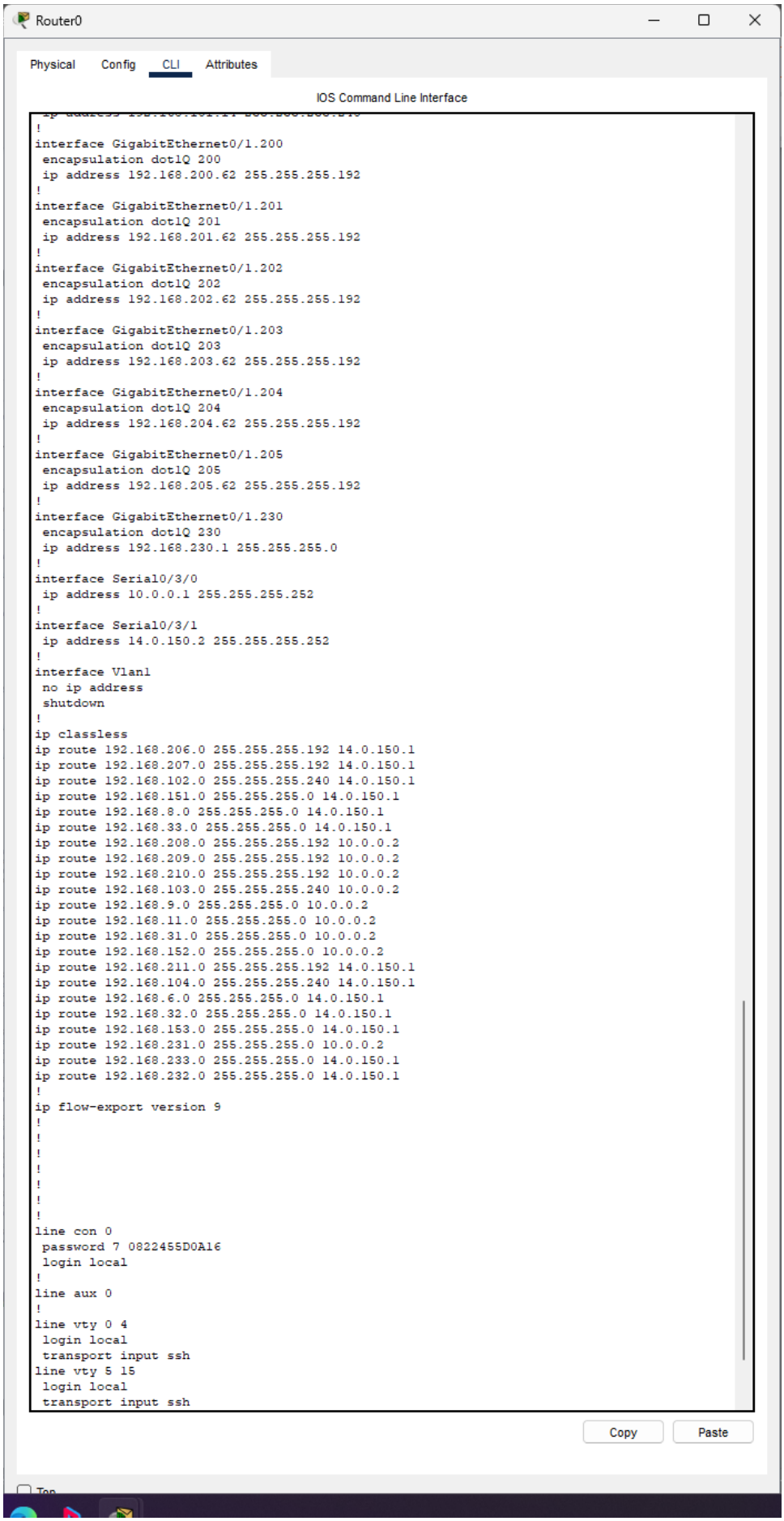

Laptop3
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
[Connection to 192.168.31.1 closed by foreign host]
C:\>ssh -l cisco 192.168.30.10
Password:
Switch_Paris_10>exit
[Connection to 192.168.30.10 closed by foreign host]
C:\>ssh -l cisco 192.168.230.1
Password:
R1>exit
[Connection to 192.168.230.1 closed by foreign host]
C:\>ssh -l cisco 192.168.232.1
Password:
R3>exit
[Connection to 192.168.232.1 closed by foreign host]
C:\>ssh -l cisco 192.168.231.1
Password:
R2>exit
[Connection to 192.168.231.1 closed by foreign host]
C:\>
Top



Configuration Router et Switch Coeur par site

Paris


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
R1>en
Password:
R1#sh run
Building configuration...
Current configuration : 3202 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
!
enable password 7 0822455D0A16
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
username cisco password 7 0822455D0A16
!
!
license udi pid CISCO2901/K9 sn FTX152460WH-
!
!
!
!
!
!
!
!
!
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
ip domain-name [Galer.com](http://galer.com/)
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface GigabitEthernet0/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
!
interface GigabitEthernet0/1.7
 encapsulation dot1Q 7
 ip address 192.168.7.254 255.255.255.0
!
interface GigabitEthernet0/1.10
 encapsulation dot1Q 10
 ip address 192.168.10.254 255.255.255.0
!
interface GigabitEthernet0/1.30
 encapsulation dot1Q 30
 ip address 192.168.30.254 255.255.255.0
!
interface GigabitEthernet0/1.101
 encapsulation dot1Q 101
 ip address 192.168.101.14 255.255.255.240
!
interface GigabitEthernet0/1.200
Copy
Paste
Top


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
!
interface GigabitEthernet0/1.200
 encapsulation dot1Q 200
 ip address 192.168.200.62 255.255.255.192
!
interface GigabitEthernet0/1.201
 encapsulation dot1Q 201
 ip address 192.168.201.62 255.255.255.192
!
interface GigabitEthernet0/1.202
 encapsulation dot1Q 202
 ip address 192.168.202.62 255.255.255.192
!
interface GigabitEthernet0/1.203
 encapsulation dot1Q 203
 ip address 192.168.203.62 255.255.255.192
!
interface GigabitEthernet0/1.204
 encapsulation dot1Q 204
 ip address 192.168.204.62 255.255.255.192
!
interface GigabitEthernet0/1.205
 encapsulation dot1Q 205
 ip address 192.168.205.62 255.255.255.192
!
interface GigabitEthernet0/1.230
 encapsulation dot1Q 230
 ip address 192.168.230.1 255.255.255.0
!
interface Serial0/3/0
 ip address 10.0.0.1 255.255.255.252
!
interface Serial0/3/1
 ip address 14.0.150.2 255.255.255.252
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 192.168.206.0 255.255.255.192 14.0.150.1
ip route 192.168.207.0 255.255.255.192 14.0.150.1
ip route 192.168.102.0 255.255.255.240 14.0.150.1
ip route 192.168.151.0 255.255.255.0 14.0.150.1
ip route 192.168.8.0 255.255.255.0 14.0.150.1
ip route 192.168.33.0 255.255.255.0 14.0.150.1
ip route 192.168.208.0 255.255.255.192 10.0.0.2
ip route 192.168.209.0 255.255.255.192 10.0.0.2
ip route 192.168.210.0 255.255.255.192 10.0.0.2
ip route 192.168.103.0 255.255.255.240 10.0.0.2
ip route 192.168.9.0 255.255.255.0 10.0.0.2
ip route 192.168.11.0 255.255.255.0 10.0.0.2
ip route 192.168.31.0 255.255.255.0 10.0.0.2
ip route 192.168.152.0 255.255.255.0 10.0.0.2
ip route 192.168.211.0 255.255.255.192 14.0.150.1
ip route 192.168.104.0 255.255.255.240 14.0.150.1
ip route 192.168.6.0 255.255.255.0 14.0.150.1
ip route 192.168.32.0 255.255.255.0 14.0.150.1
ip route 192.168.153.0 255.255.255.0 14.0.150.1
ip route 192.168.231.0 255.255.255.0 10.0.0.2
ip route 192.168.233.0 255.255.255.0 14.0.150.1
ip route 192.168.232.0 255.255.255.0 14.0.150.1
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line aux 0
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
Copy
Paste
Top

```
!
interface FastEthernet0/21
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/22
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/23
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface FastEthernet0/24
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface GigabitEthernet0/1
 switchport mode trunk
 switchport nonegotiate
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan30
 ip address 192.168.30.1 255.255.255.0
!
ip default-gateway 192.168.30.254
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
!
!
end
```

Londres

Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
hostname R2
!
!
!
enable password 7 0822455D0A16
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
username cisco password 7 0822455D0A16
!
!
license udi pid CISCO2901/K9 sn FTX1524NIZ8-
!
!
!
!
!
!
!
!
!
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
ip domain-name [Galer.com](http://galer.com/)
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface GigabitEthernet0/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
!
interface GigabitEthernet0/1.9
 encapsulation dot1Q 9
 ip address 192.168.9.254 255.255.255.0
!
interface GigabitEthernet0/1.11
 encapsulation dot1Q 11
 ip address 192.168.11.254 255.255.255.0
!
interface GigabitEthernet0/1.31
 encapsulation dot1Q 31
 ip address 192.168.31.254 255.255.255.0
!
interface GigabitEthernet0/1.103
 encapsulation dot1Q 103
 ip address 192.168.103.14 255.255.255.240
!
interface GigabitEthernet0/1.152
 encapsulation dot1Q 152
 ip address 192.168.152.126 255.255.255.128
!
interface GigabitEthernet0/1.208
 encapsulation dot1Q 208
 ip address 192.168.208.62 255.255.255.192
!
interface GigabitEthernet0/1.209
 encapsulation dot1Q 209
 ip address 192.168.209.62 255.255.255.192
!
interface GigabitEthernet0/1.210
 encapsulation dot1Q 210
 ip address 192.168.210.62 255.255.255.192
!
Copy
Paste
Top

```
!
interface Serial0/3/0
 ip address 10.0.0.2 255.255.255.252
 clock rate 2000000
!
interface Serial0/3/1
 ip address 10.0.10.1 255.255.255.252
 clock rate 2000000
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 192.168.200.0 255.255.255.192 10.0.0.1
ip route 192.168.201.0 255.255.255.192 10.0.0.1
ip route 192.168.202.0 255.255.255.192 10.0.0.1
ip route 192.168.203.0 255.255.255.192 10.0.0.1
ip route 192.168.204.0 255.255.255.192 10.0.0.1
ip route 192.168.205.0 255.255.255.192 10.0.0.1
ip route 192.168.101.0 255.255.255.240 10.0.0.1
ip route 192.168.7.0 255.255.255.0 10.0.0.1
ip route 192.168.10.0 255.255.255.0 10.0.0.1
ip route 192.168.30.0 255.255.255.0 10.0.0.1
ip route 192.168.211.0 255.255.255.192 10.0.10.2
ip route 192.168.104.0 255.255.255.240 10.0.10.2
ip route 192.168.6.0 255.255.255.0 10.0.10.2
ip route 192.168.32.0 255.255.255.0 10.0.10.2
ip route 192.168.153.0 255.255.255.0 10.0.10.2
ip route 192.168.206.0 255.255.255.192 10.0.0.1
ip route 192.168.207.0 255.255.255.192 10.0.0.1
ip route 192.168.102.0 255.255.255.240 10.0.0.1
ip route 192.168.151.0 255.255.255.0 10.0.0.1
ip route 192.168.8.0 255.255.255.0 10.0.0.1
ip route 192.168.33.0 255.255.255.0 10.0.0.1
ip route 192.168.230.0 255.255.255.0 10.0.0.1
ip route 192.168.233.0 255.255.255.0 10.0.0.1
ip route 192.168.232.0 255.255.255.0 10.0.10.2
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line aux 0
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
!
end


R2#
```

Switch_Londres_1

Physical Config CLI Attributes

IOS Command Line Interface

```
Switch_Londres_1>en
Password:
Switch_Londres_1#sh run
Building configuration...

Current configuration : 1933 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Switch_Londres_1
!
enable password 7 0822455D0A16
!
!
!
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
ip domain-name Galer.com
!
username cisco privilege 1 password 7 0822455D0A16
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface Port-channel1
 switchport mode trunk
 switchport nonegotiate
!
interface Port-channel2
 switchport mode trunk
 switchport nonegotiate
!
```

```
!
interface FastEthernet0/21
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/22
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/23
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface FastEthernet0/24
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface GigabitEthernet0/1
 switchport mode trunk
 switchport nonegotiate
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan31
 ip address 192.168.31.1 255.255.255.0
!
ip default-gateway 192.168.31.254
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
!
!
end


Switch_Londres_1#
```

Tokyo

Router3

Physical Config CLI Attributes

IOS Command Line Interface

```
hostname R3
!
!
!
enable password 7 0822455D0A16
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
username cisco password 7 0822455D0A16
!
!
license udi pid CISCO2901/K9 sn FTX1524KX0R-
!
!
!
!
!
!
!
!
!
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
ip domain-name Galer.com
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface GigabitEthernet0/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
!
interface GigabitEthernet0/1.6
 encapsulation dot1Q 6
 ip address 192.168.6.254 255.255.255.0
!
interface GigabitEthernet0/1.32
 encapsulation dot1Q 32
 ip address 192.168.32.254 255.255.255.0
!
interface GigabitEthernet0/1.104
 encapsulation dot1Q 104
 ip address 192.168.104.14 255.255.255.240
!
interface GigabitEthernet0/1.153
 encapsulation dot1Q 153
 ip address 192.168.153.254 255.255.255.0
!
interface GigabitEthernet0/1.211
 encapsulation dot1Q 211
 ip address 192.168.211.62 255.255.255.192
!
interface GigabitEthernet0/1.232
 encapsulation dot1Q 232
 ip address 192.168.232.1 255.255.255.0
!
interface Serial0/3/0
 ip address 11.0.100.1 255.255.255.252
 clock rate 2000000
!
interface Serial0/3/1
 ip address 10.0.10.2 255.255.255.252
!
interface Vlan1
```

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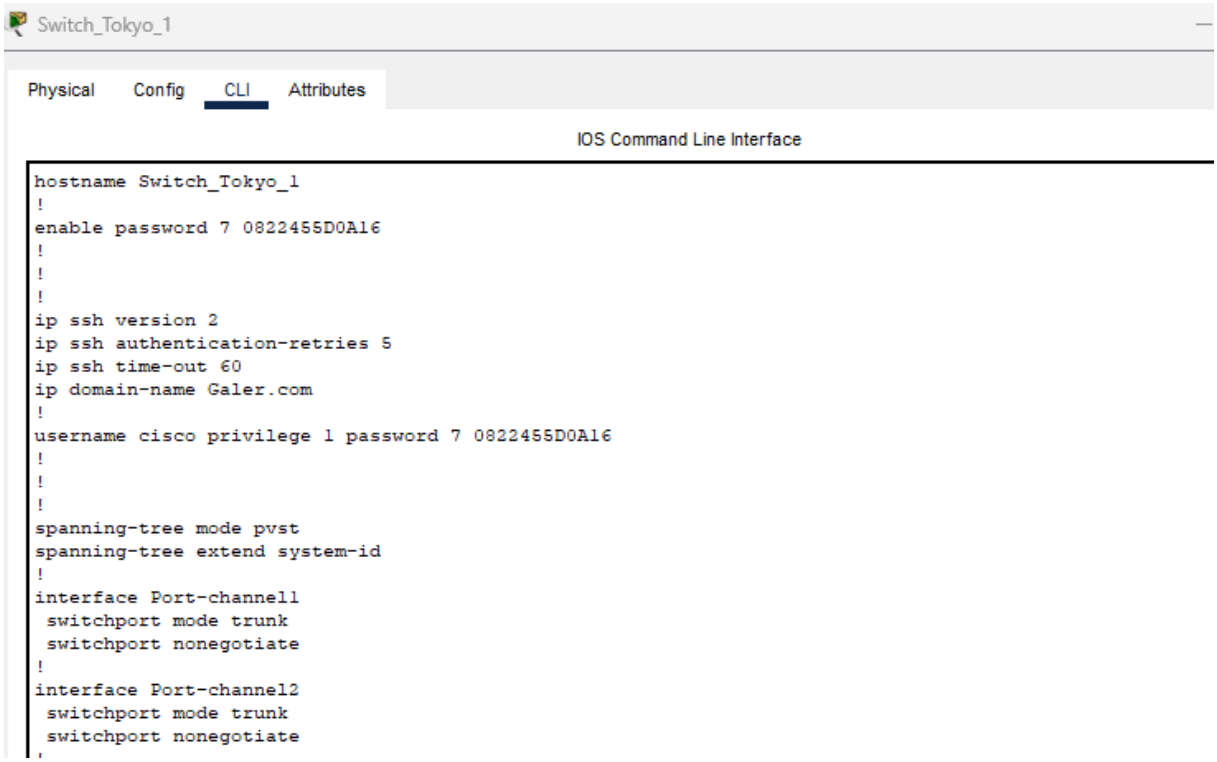
Top

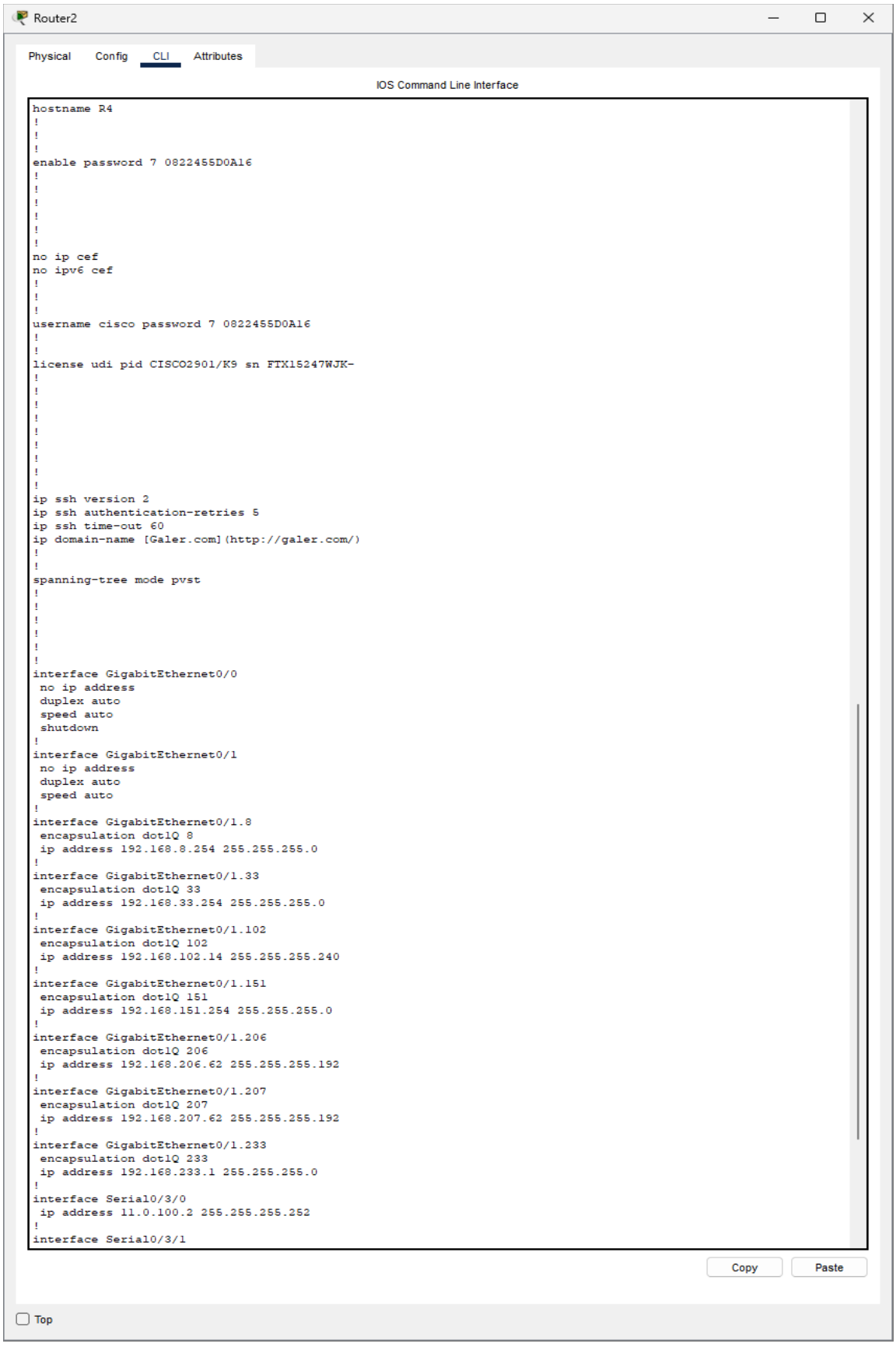
```
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 192.168.209.0 255.255.255.192 10.0.10.1
ip route 192.168.208.0 255.255.255.192 10.0.10.1
ip route 192.168.210.0 255.255.255.192 10.0.10.1
ip route 192.168.103.0 255.255.255.240 10.0.10.1
ip route 192.168.9.0 255.255.255.0 10.0.10.1
ip route 192.168.31.0 255.255.255.0 10.0.10.1
ip route 192.168.11.0 255.255.255.192 10.0.10.1
ip route 192.168.152.0 255.255.255.0 10.0.10.1
ip route 192.168.206.0 255.255.255.192 11.0.100.2
ip route 192.168.207.0 255.255.255.192 11.0.100.2
ip route 192.168.102.0 255.255.255.240 11.0.100.2
ip route 192.168.8.0 255.255.255.0 11.0.100.2
ip route 192.168.33.0 255.255.255.0 11.0.100.2
ip route 192.168.151.0 255.255.255.0 11.0.100.2
ip route 192.168.200.0 255.255.255.192 10.0.10.1
ip route 192.168.201.0 255.255.255.192 10.0.10.1
ip route 192.168.202.0 255.255.255.192 10.0.10.1
ip route 192.168.203.0 255.255.255.192 10.0.10.1
ip route 192.168.204.0 255.255.255.192 10.0.10.1
ip route 192.168.205.0 255.255.255.192 10.0.10.1
ip route 192.168.101.0 255.255.255.240 10.0.10.1
ip route 192.168.7.0 255.255.255.0 10.0.10.1
ip route 192.168.10.0 255.255.255.0 10.0.10.1
ip route 192.168.30.0 255.255.255.0 10.0.10.1
ip route 192.168.231.0 255.255.255.0 10.0.10.1
ip route 192.168.230.0 255.255.255.0 10.0.10.1
ip route 192.168.233.0 255.255.255.0 11.0.100.2
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line aux 0
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
!
end


R3#
```




```
interface FastEthernet0/21
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/22
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/23
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface FastEthernet0/24
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface GigabitEthernet0/1
 switchport mode trunk
 switchport nonegotiate
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan32
 ip address 192.168.32.1 255.255.255.0
!
ip default-gateway 192.168.32.254
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
```

Toulouse


Router2
Physical
Config
CLI
Attributes
IOS Command Line Interface
hostname R4
!
!
!
enable password 7 0822455D0A16
!
!
!
!
!
!
no ip cef
no ipv6 cef
!
!
!
username cisco password 7 0822455D0A16
!
!
license udi pid CISCO2901/K9 sn FTX15247WJK-
!
!
!
!
!
!
!
!
!
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
ip domain-name [Galer.com](http://galer.com/)
!
!
spanning-tree mode pvst
!
!
!
!
!
!
interface GigabitEthernet0/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface GigabitEthernet0/1
 no ip address
 duplex auto
 speed auto
!
interface GigabitEthernet0/1.8
 encapsulation dot1Q 8
 ip address 192.168.8.254 255.255.255.0
!
interface GigabitEthernet0/1.33
 encapsulation dot1Q 33
 ip address 192.168.33.254 255.255.255.0
!
interface GigabitEthernet0/1.102
 encapsulation dot1Q 102
 ip address 192.168.102.14 255.255.255.240
!
interface GigabitEthernet0/1.151
 encapsulation dot1Q 151
 ip address 192.168.151.254 255.255.255.0
!
interface GigabitEthernet0/1.206
 encapsulation dot1Q 206
 ip address 192.168.206.62 255.255.255.192
!
interface GigabitEthernet0/1.207
 encapsulation dot1Q 207
 ip address 192.168.207.62 255.255.255.192
!
interface GigabitEthernet0/1.233
 encapsulation dot1Q 233
 ip address 192.168.233.1 255.255.255.0
!
interface Serial0/3/0
 ip address 11.0.100.2 255.255.255.252
!
interface Serial0/3/1
Copy
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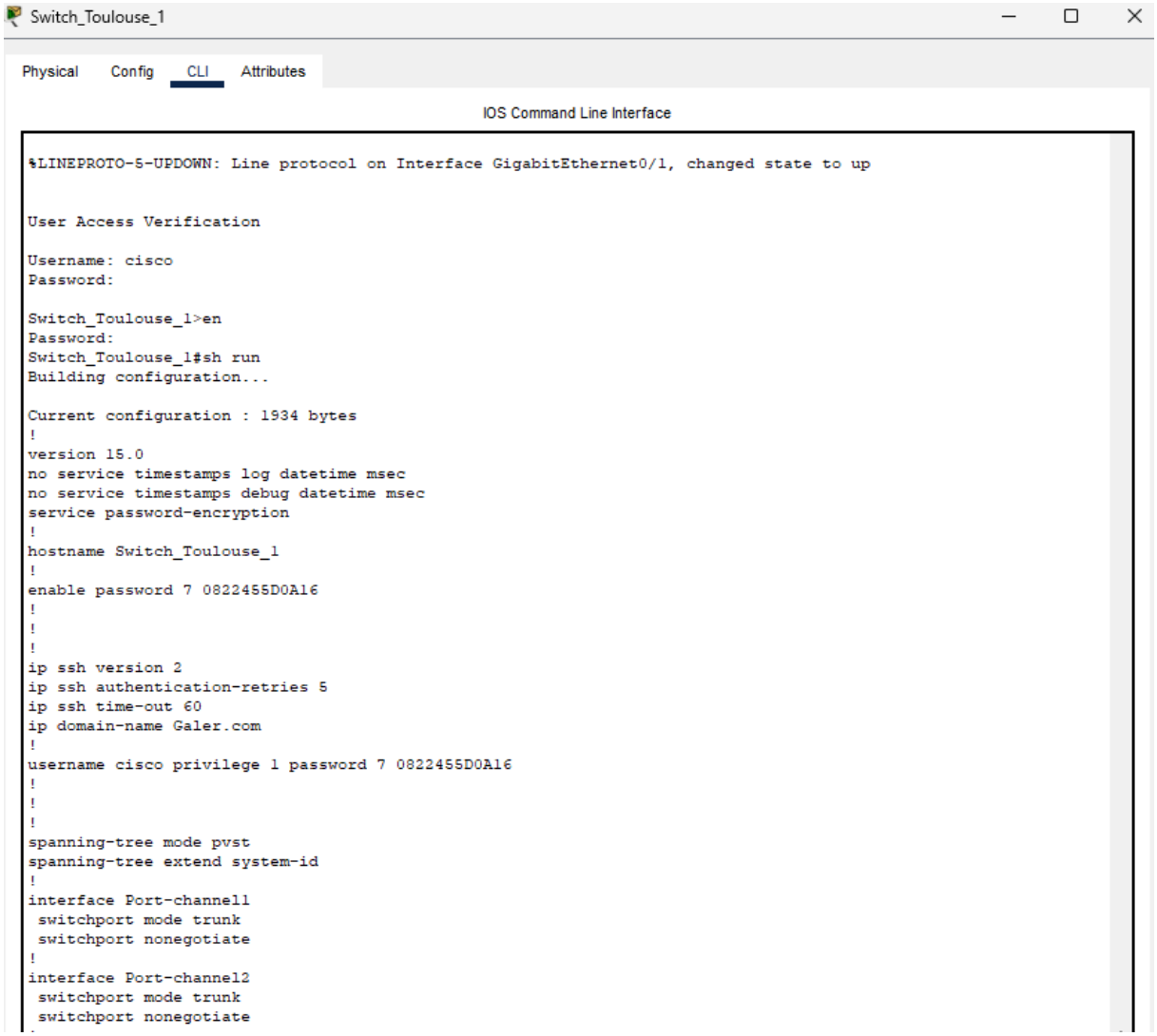
Top

```
!
interface Serial0/3/0
 ip address 11.0.100.2 255.255.255.252
!
interface Serial0/3/1
 ip address 14.0.150.1 255.255.255.252
 clock rate 2000000
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
ip route 192.168.209.0 255.255.255.192 11.0.100.1
ip route 192.168.208.0 255.255.255.192 11.0.100.1
ip route 192.168.210.0 255.255.255.192 11.0.100.1
ip route 192.168.103.0 255.255.255.240 11.0.100.1
ip route 192.168.9.0 255.255.255.0 11.0.100.1
ip route 192.168.31.0 255.255.255.0 11.0.100.1
ip route 192.168.11.0 255.255.255.192 11.0.100.1
ip route 192.168.152.0 255.255.255.0 11.0.100.1
ip route 192.168.200.0 255.255.255.192 14.0.150.2
ip route 192.168.201.0 255.255.255.192 14.0.150.2
ip route 192.168.202.0 255.255.255.192 14.0.150.2
ip route 192.168.203.0 255.255.255.192 14.0.150.2
ip route 192.168.204.0 255.255.255.192 14.0.150.2
ip route 192.168.205.0 255.255.255.192 14.0.150.2
ip route 192.168.101.0 255.255.255.240 14.0.150.2
ip route 192.168.7.0 255.255.255.0 14.0.150.2
ip route 192.168.10.0 255.255.255.0 14.0.150.2
ip route 192.168.30.0 255.255.255.0 14.0.150.2
ip route 192.168.211.0 255.255.255.192 11.0.100.1
ip route 192.168.104.0 255.255.255.240 11.0.100.1
ip route 192.168.6.0 255.255.255.0 11.0.100.1
ip route 192.168.32.0 255.255.255.0 11.0.100.1
ip route 192.168.153.0 255.255.255.0 11.0.100.1
ip route 192.168.231.0 255.255.255.0 11.0.100.1
ip route 192.168.232.0 255.255.255.0 11.0.100.1
ip route 192.168.230.0 255.255.255.0 14.0.150.2
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line aux 0
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
!
end


R4#
```


Switch_Toulouse_1
Physical
Config
CLI
Attributes
IOS Command Line Interface
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
User Access Verification
Username: cisco
Password:
Switch_Toulouse_1>en
Password:
Switch_Toulouse_1#sh run
Building configuration...
Current configuration : 1934 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname Switch_Toulouse_1
!
enable password 7 0822455D0A16
!
!
!
ip ssh version 2
ip ssh authentication-retries 5
ip ssh time-out 60
ip domain-name Galer.com
!
username cisco privilege 1 password 7 0822455D0A16
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface Port-channel1
switchport mode trunk
switchport nonegotiate
!
interface Port-channel2
switchport mode trunk
switchport nonegotiate

```
!
interface FastEthernet0/21
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/22
 switchport mode trunk
 switchport nonegotiate
 channel-group 2 mode on
!
interface FastEthernet0/23
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface FastEthernet0/24
 switchport mode trunk
 switchport nonegotiate
 channel-group 1 mode on
!
interface GigabitEthernet0/1
 switchport mode trunk
 switchport nonegotiate
!
interface GigabitEthernet0/2
!
interface Vlan1
 no ip address
 shutdown
!
interface Vlan33
 ip address 192.168.33.1 255.255.255.0
!
ip default-gateway 192.168.33.254
!
!
!
!
line con 0
 password 7 0822455D0A16
 login local
!
line vty 0 4
 login local
 transport input ssh
line vty 5 15
 login local
 transport input ssh
!
!
!
!
end


Switch_Toulouse_1#
```