Infrastructure Réseau Fonctionnelle

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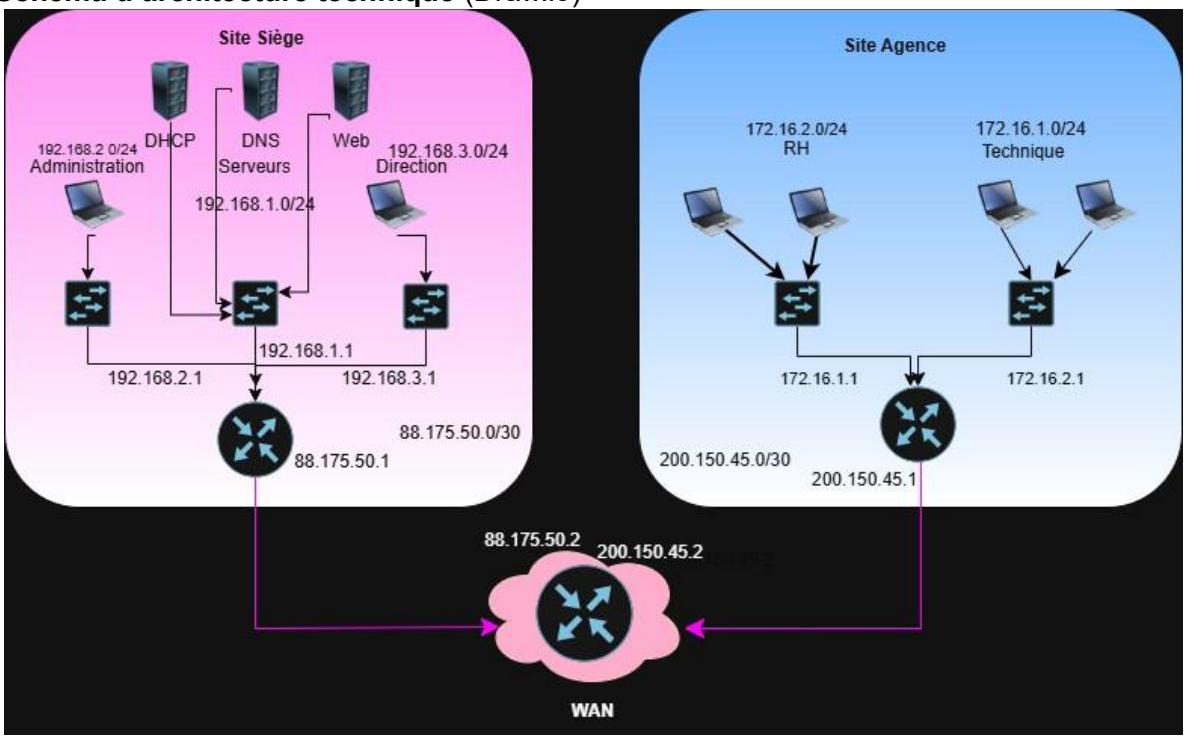
IRIS ECOLE SUPERIEURE D'INFORMATIQUE TOULOUSE

Schéma d'architecture technique (Draw.io)



Plan d'adressage IP complet et détaillé (en forme de tableau)

Plan adressage IP Privée GreenCop						
Site	Service	LAN	Gateway	Serveur	Protocol	IP serveur
Siege	Administration	192.168.2.0/24	192.168.2.1	N/A	N/A	N/A
	Direction	192.168.3.0/24	192.168.3.1	N/A	N/A	N/A
	Serveur	192.168.1.0/24	192.168.1.1	dns1	DNS	192.168.1.100
				dhcp-srv	DHCP	192.168.1.101
				Web-srv	WEB	192.168.1.102
Agence	RH	172.16.2.0/24	172.16.2.1	N/A		N/A
	Technique	172.16.1.0/24	172.16.1.1	N/A		N/A

Plan adressage IP Privée GreenCop			
Site	**Routeur**	**Interface**	**IP**
Siege	R-SG	Gi0/0/0	88.175.50.1
Agence	R-AG	Gi0/0/0	200.150.45.1
WAN	R-WAN	Gi0/0/0	88.175.50.2
		Gi0/0/1	200.150.45.2

Configuration complète des équipements (commandes Cisco)

- **ROUTEUR HQ (siege)**

```
enable
configure terminal

interface GigabitEthernet0/1 ip
address 192.168.1.1 255.255.255.0
 no shutdown
exit

interface GigabitEthernet0/2 ip
address 192.168.2.1 255.255.255.0
 no shutdown
exit

interface GigabitEthernet0/0 ip address
88.175.50.1 255.255.255.252
 no shutdown
exit

ip route 172.16.1.0 255.255.255.0 88.175.50.2 ip
route 172.16.2.0 255.255.255.0 88.175.50.2
```

- **ROUTEUR AGENCE (R-AG)**

```
enable configure
terminal

interface GigabitEthernet0/1 ip
address 172.16.2.1 255.255.255.0
 no shutdown
exit
interface GigabitEthernet0/2 ip
address 172.16.1.1 255.255.255.0
 no shutdown exit

interface GigabitEthernet0/0 ip address
200.150.45.1 255.255.255.252 no
shutdown exit

ip route 192.168.1.0 255.255.255.0 200.150.45.2 ip
route 192.168.2.0 255.255.255.0 200.150.45.2 ip
route 192.168.3.0 255.255.255.0 200.150.45.2
```

- **ROUTEUR PRINCIPAL (R-WAN)**

```
enable    configure
terminal

interface GigabitEthernet0/0   ip address
88.175.50.2 255.255.255.252
 no shutdown
exit

interface  GigabitEthernet0/1    ip  address
200.150.45.2     255.255.255.252          no
shutdown
exit

ip route 192.168.1.0 255.255.255.0 88.175.50.1 ip
route 192.168.2.0 255.255.255.0 88.175.50.1 ip
route 192.168.3.0 255.255.255.0 88.175.50.1 ip
route 172.16.1.0 255.255.255.0 200.150.45.1 ip
route 172.16.2.0 255.255.255.0 200.150.45.1
```

- **SWITCH RH (Agence – Switch 1)**

```
enable
configure terminal

interface  FastEthernet0/1
switchport   mode   access
switchport access vlan 1
exit

interface FastEthernet0/2
switchport mode access
switchport access vlan 1
exit

interface FastEthernet0/24
switchport mode access
switchport access vlan 1 exit
```

- **SWITCH Technique (Agence – Switch 4)** enable

```
configure terminal

interface FastEthernet0/1
 switchport   mode   access
switchport access vlan 1
exit
```

```
interface  FastEthernet0/2
switchport  mode  access
switchport access vlan 1
exit

interface  FastEthernet0/24
switchport  mode  access
switchport access vlan 1
exit
```

- **SWITCH Admin (siege)**

```
enable configure terminal

interface  FastEthernet0/1
switchport  mode  access
switchport access vlan 1
exit

interface  FastEthernet0/2
switchport  mode  access
switchport access vlan 1
exit

interface FastEthernet0/24
switchport mode access
switchport access vlan 1 exit
```

- **SWITCH Direction (siege)**

```
enable
configure terminal

interface  FastEthernet0/1
switchport  mode  access
switchport access vlan 1
exit

interface  FastEthernet0/2
switchport  mode  access
switchport  access  vlan  1
exit

interface FastEthernet0/24
switchport mode access
switchport access vlan 1 exit
```

- **SWITCH Serveurs (siege)** enable

configure terminal

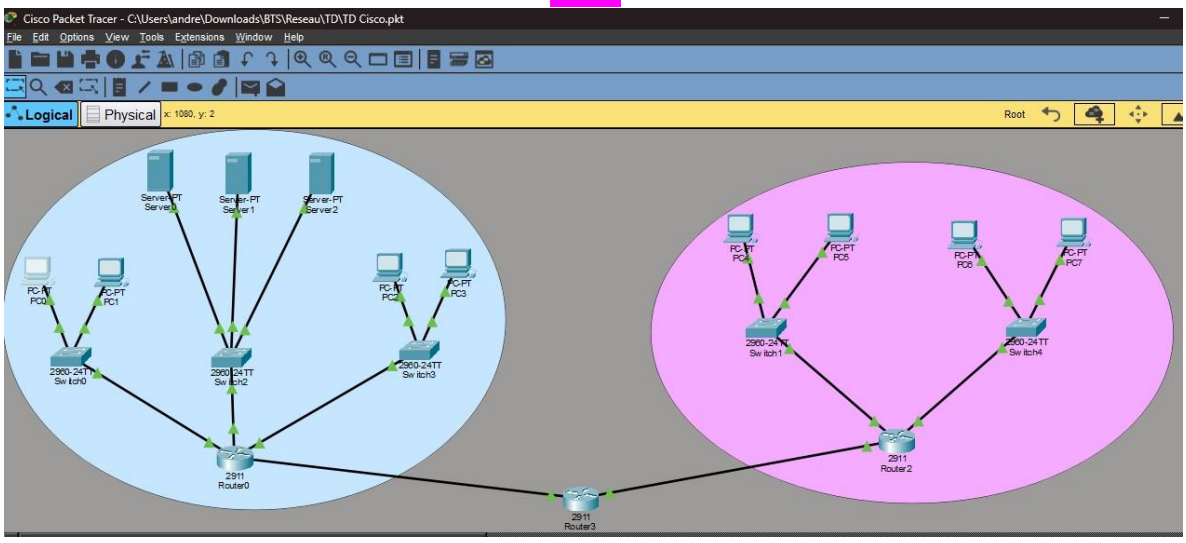
interface FastEthernet0/1
switchport mode access
switchport access vlan 1
exit

interface FastEthernet0/2
switchport mode access
switchport access vlan 1
exit

interface FastEthernet0/3
switchport mode access
switchport access vlan 1
exit

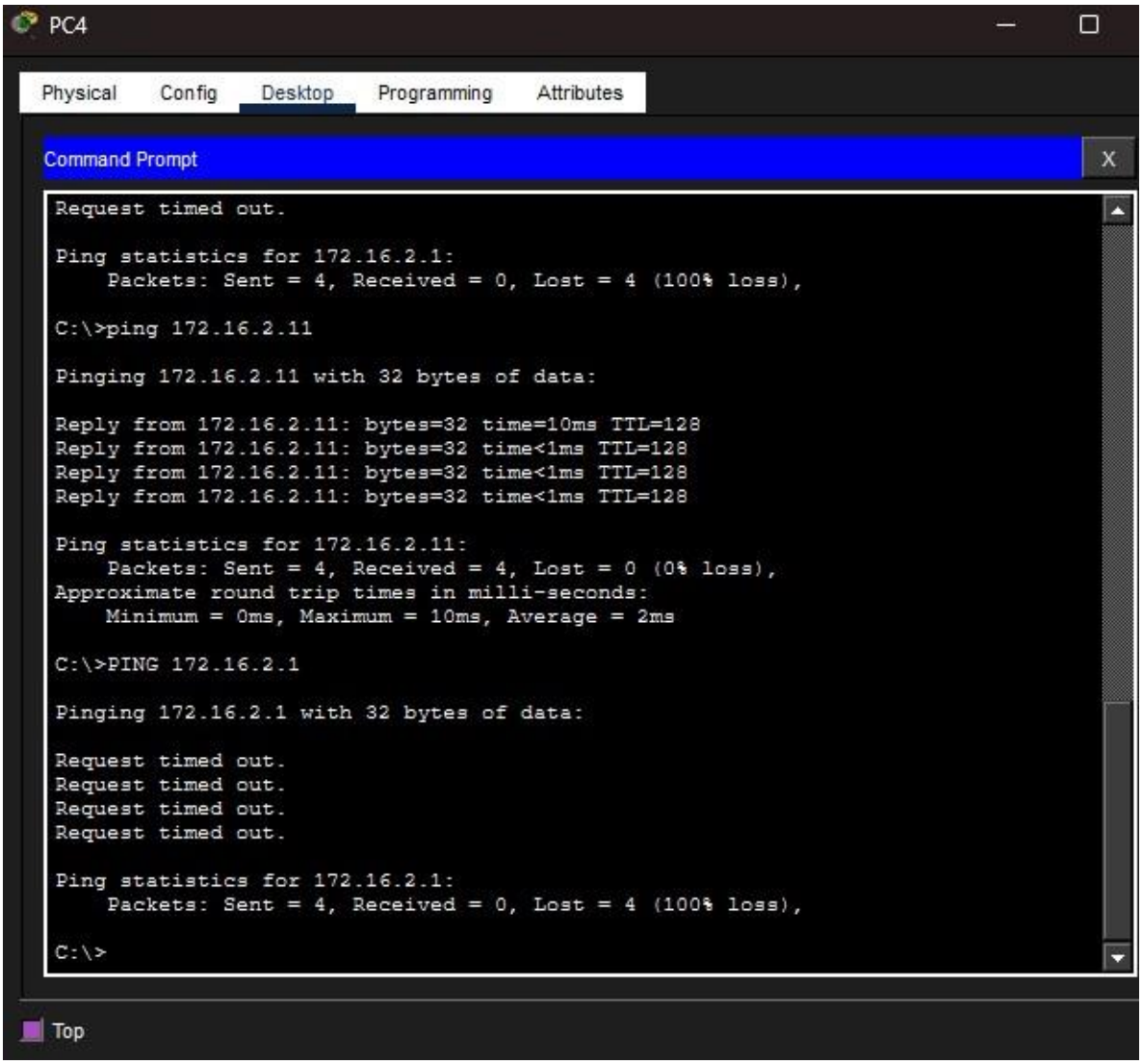
interface FastEthernet0/24
switchport mode access
switchport access vlan 1
exit

CISCO

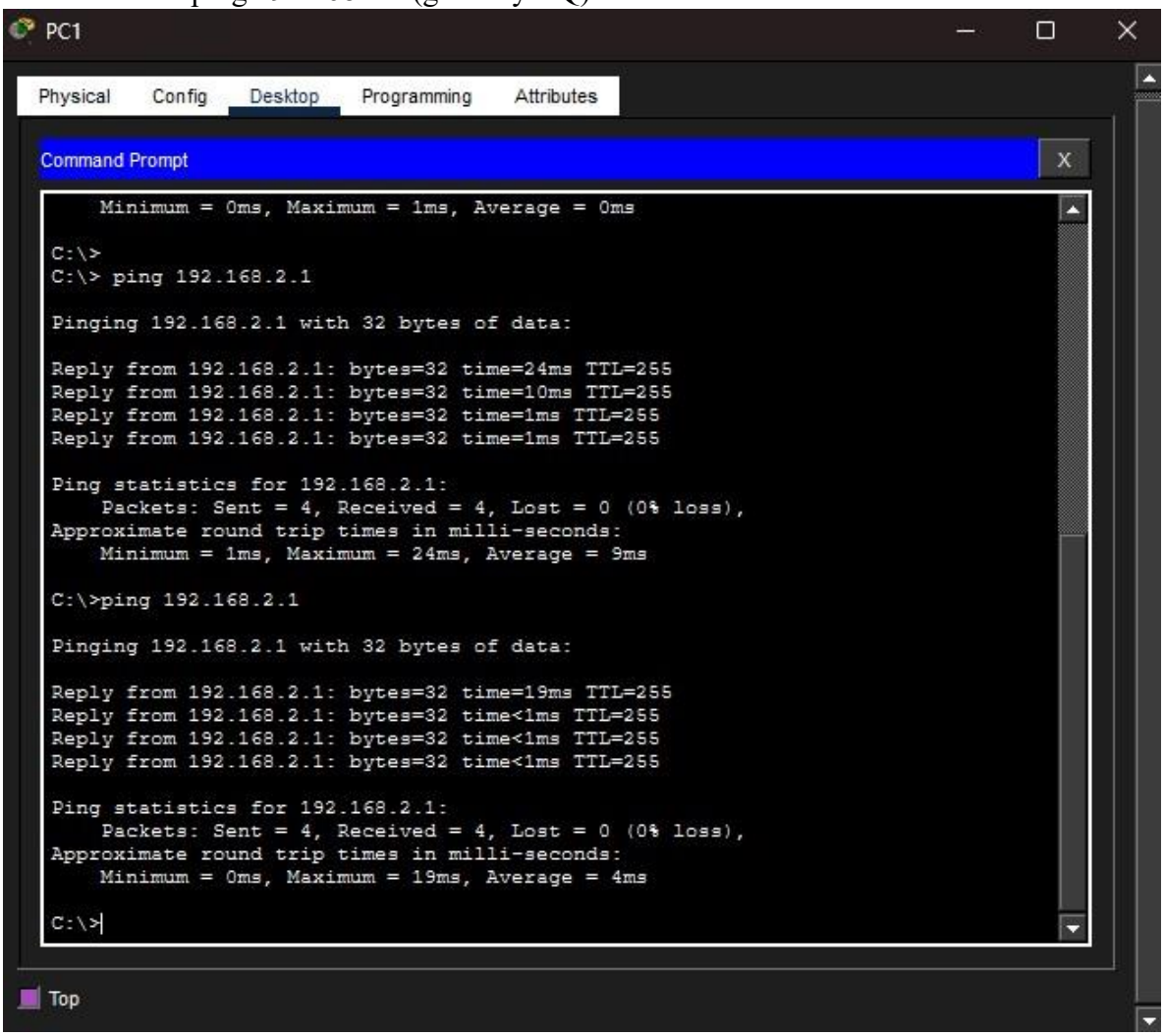


Ping entre PC et routeurs

PC2 --> (gateway R-AG).

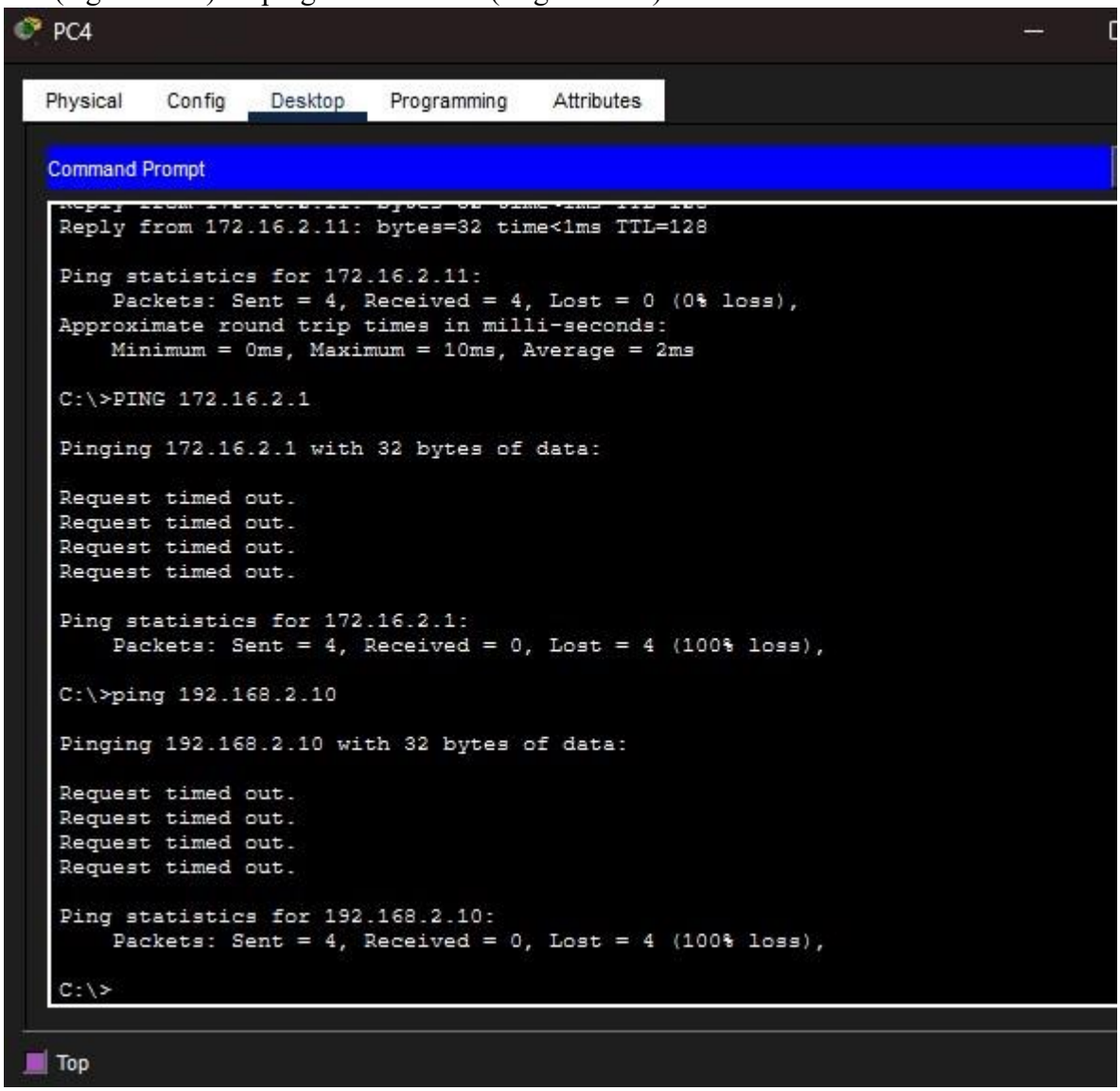

PC4
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Request timed out.
Ping statistics for 172.16.2.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 172.16.2.11
Pinging 172.16.2.11 with 32 bytes of data:
Reply from 172.16.2.11: bytes=32 time=10ms TTL=128
Reply from 172.16.2.11: bytes=32 time<1ms TTL=128
Reply from 172.16.2.11: bytes=32 time<1ms TTL=128
Reply from 172.16.2.11: bytes=32 time<1ms TTL=128
Ping statistics for 172.16.2.11:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 10ms, Average = 2ms
C:\>PING 172.16.2.1
Pinging 172.16.2.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 172.16.2.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
Top

PC-Admin1 → ping 192.168.2.1 (gateway HQ).

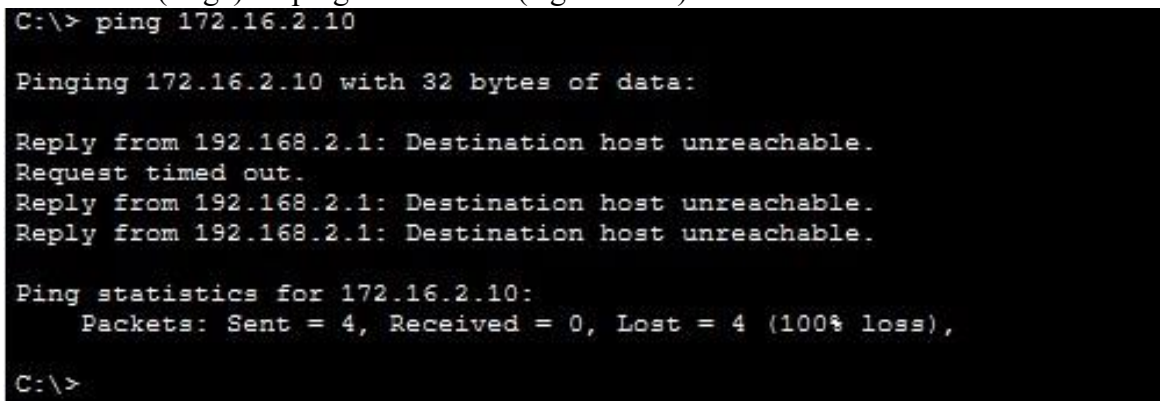


Ping entre sites

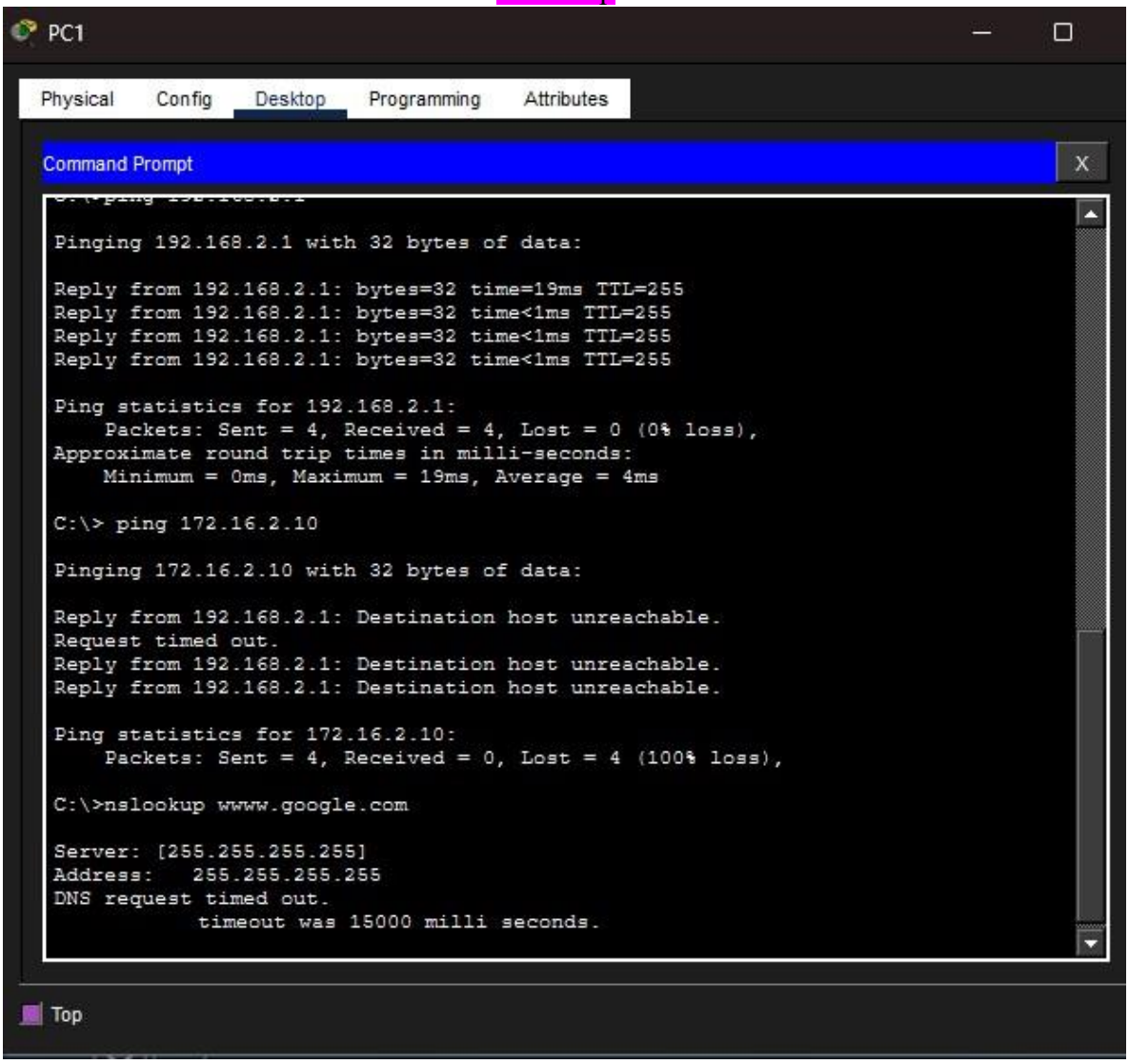
PC4 (Agence RH) → ping 192.168.2.10 (siege Admin).



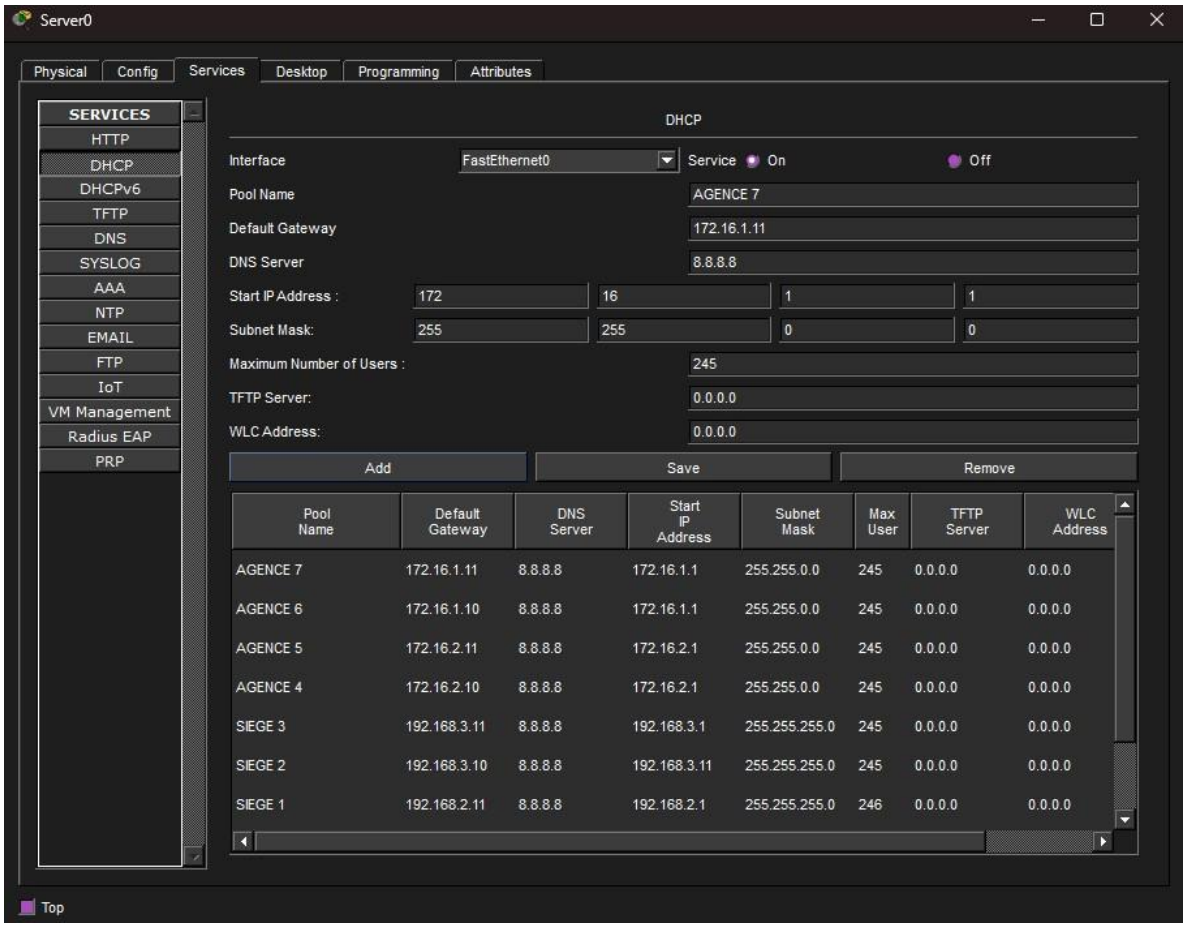
PC-Admin1 (siege) → ping 172.16.2.10 (Agence RH)

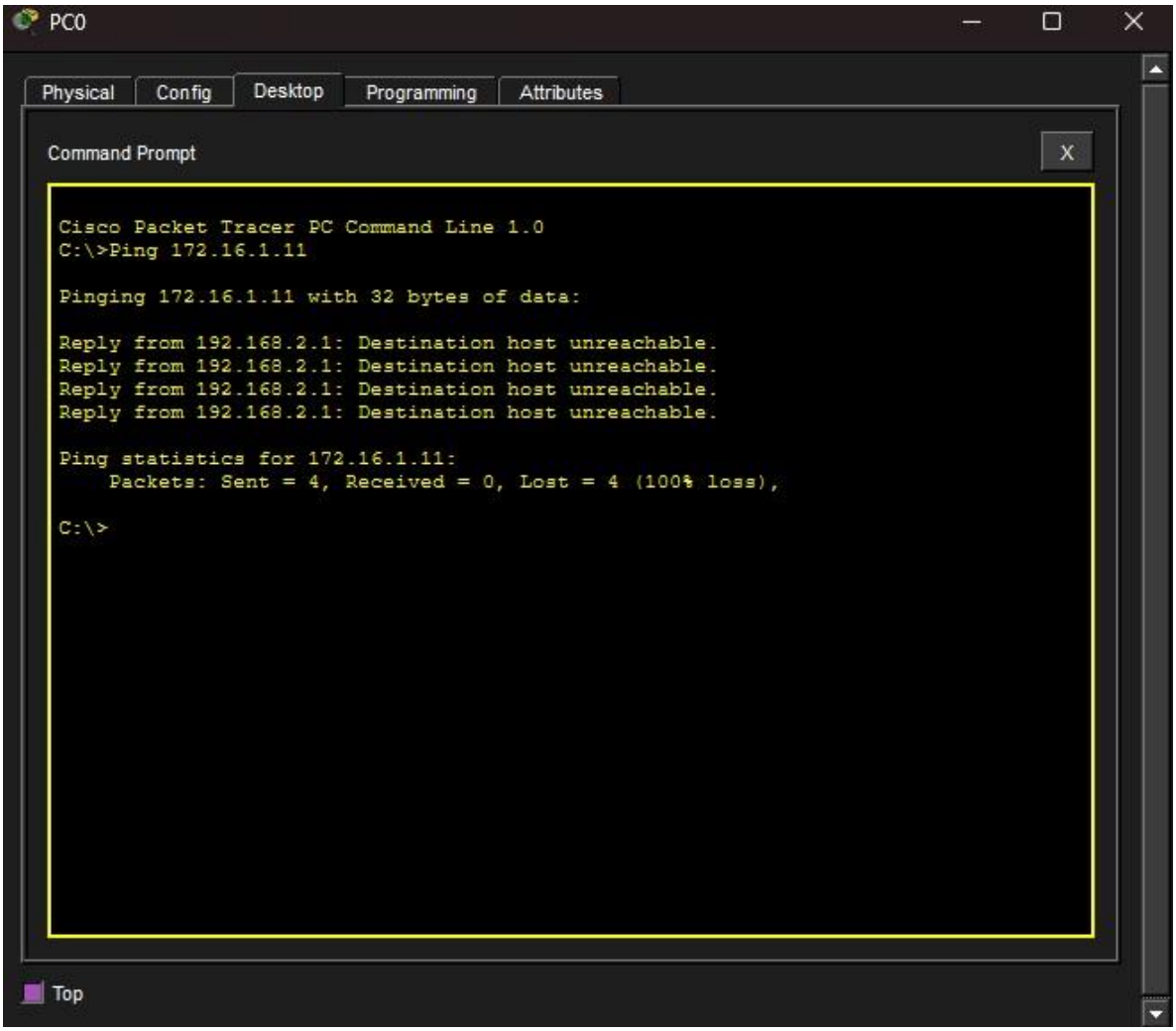


Nslookup


PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Pinging 192.168.2.1 with 32 bytes of data:
Reply from 192.168.2.1: bytes=32 time=19ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Ping statistics for 192.168.2.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 19ms, Average = 4ms
C:\> ping 172.16.2.10
Pinging 172.16.2.10 with 32 bytes of data:
Reply from 192.168.2.1: Destination host unreachable.
Request timed out.
Reply from 192.168.2.1: Destination host unreachable.
Reply from 192.168.2.1: Destination host unreachable.
Ping statistics for 172.16.2.10:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>nslookup wwww.google.com
Server: [255.255.255.255]
Address: 255.255.255.255
DNS request timed out.
timeout was 15000 milli seconds.
Top

Configuration DHCP sur les PC




PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Cisco Packet Tracer PC Command Line 1.0
C:\>Ping 172.16.1.11
Pinging 172.16.1.11 with 32 bytes of data:
Reply from 192.168.2.1: Destination host unreachable.
Reply from 192.168.2.1: Destination host unreachable.
Reply from 192.168.2.1: Destination host unreachable.
Reply from 192.168.2.1: Destination host unreachable.
Ping statistics for 172.16.1.11:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
Top

Fin.