



IUS
INSTITUT
UNIVERSITAIRE
DES SCIENCES

**FACULTÉ DES SCIENCES ET DES TECHNOLOGIES
(FST)**

Troisième année

RAPPORT

Sur le Travail de Laboratoire N°6

COURS

Réseaux I

Professeur

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PRÉPARÉ PAR

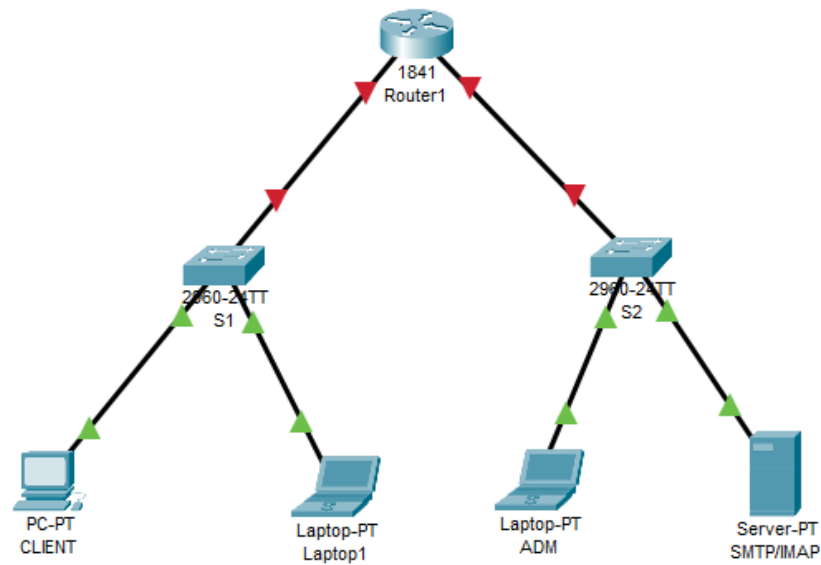
Peterson CHERY

SEMESTRE

I

28/02/2025

1. Configuration des protocoles SMTP, IMAP et POP3 afin d'assurer l'envoi, la réception et la gestion efficace des courriels.



• Configuration du Routeur

```
Router1
Router1>enable
Router1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router1(config)#hostname R1
R1(config)#interface FastEthernet0/0
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no shut down
R1(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
R1(config-if)#exit
R1(config)#interface FastEthernet0/1
R1(config-if)#ip address 192.168.2.1 255.255.255.0
R1(config-if)#no shut down
R1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
R1(config-if)#exit
R1(config)#exit
R1#
%SYS-5-CONFIG_I: Configured from console by console
R1# show arp
Protocol Address Age (min) Hardware Addr Type Interface
Internet 192.168.1.1 - 00E0.B017.6D01 ARPA FastEthernet0/0
Internet 192.168.2.1 - 00E0.B017.6D02 ARPA FastEthernet0/1
R1#
```

• Configuration des Commutateurs

```

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S1
S1(config)#interface vlan 1
S1(config-if)# ip address 192.168.1.2 255.255.255.0
S1(config-if)#no shut down

S1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

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

S1(config-if)#exit
S1(config)# ip default-gateway 192.168.1.1
S1(config)#show arp
^
% Invalid input detected at '^' marker.

S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console

S1#show arp
Protocol Address Age (min) Hardware Addr Type Interface
Internet 192.168.1.2 - 0002.4A0C.6473 ARPA Vlan1
S1#

```

Copy

Paste

Physical Config **CLI** Attributes

IOS Command Line Interface

```

%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S2
S2(config)#interface vlan 1
S2(config-if)# ip address 192.168.2.2 255.255.255.0
S2(config-if)#no shut down

S2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

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

S2(config-if)#exit
S2(config)# ip default-gateway 192.168.2.1
S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console

S2#show arp
Protocol Address Age (min) Hardware Addr Type Interface
Internet 192.168.2.2 - 00D0.50B1.E282 ARPA Vlan1
S2#

```

Copy

Paste

• Configuration des dispositifs

CLIENT

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 192.168.1.10

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

DNS Server: 0.0.0.0

Laptop1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.11

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 0.0.0.0

ADM

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.2.10

Subnet Mask 255.255.255.0

Default Gateway 192.168.2.1

DNS Server 0.0.0.0

SMTP/IMAP

Physical Config **Services** Desktop Programming Attributes

IP Configuration X

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.2.11

Subnet Mask 255.255.255.0

Default Gateway 192.168.2.12

DNS Server 0.0.0.0

- **Activation des services et création des utilisateurs**

SMTP/IMAP

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL**
- FTP
- IoT
- VM Management
- Radius EAP

EMAIL

SMTP Service ☒ ON ☐ OFF

POP3 Service ☒ ON ☐ OFF

Domain Name: ius.education Set

User Setup

User user3 Password password3

user1
user2

CLIENT

Physical Config **Desktop** Programming Attributes

Configure Mail X

User Information

Your Name:

Email Address:

Server Information

Incoming Mail Server:

Outgoing Mail Server:

Logon Information

User Name:

Password:

Save Remove Clear Reset

ADM

Physical Config **Desktop** Programming Attributes

Configure Mail X

User Information

Your Name:

Email Address:

Server Information

Incoming Mail Server:

Outgoing Mail Server:

Logon Information

User Name:

Password:

Save Remove Clear Reset

ADM

Physical Config **Desktop** Programming Attributes

Compose Mail X

Send

To:

Subject:

CLIENT

Physical Config **Desktop** Programming Attributes

MAIL BROWSER X

Mail

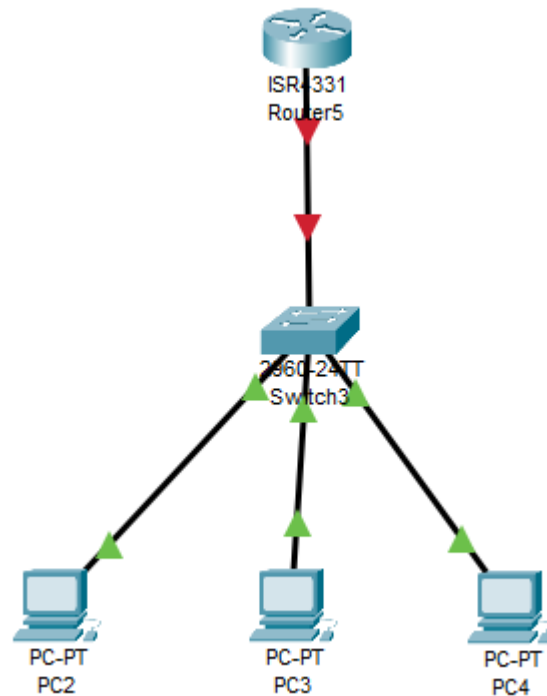
Compose Reply Receive Delete Configure Mail

From	Subject	Received
<div>< ></div>		

Cancel Send/Receive

☐ Top

2. Configuration les protocoles ICMP et IGMP sur les équipements réseau afin d'assurer le diagnostic, le contrôle des communications et la gestion efficace des flux multicast.



- Configuration de IGMP
- Activer le Routage Multicast sur le Routeur

```
Router9
Physical Config CLI Attributes
IOS Command Line Interface

Router>enable
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R1
R1(config)#interface gi
% Incomplete command.
R1(config)# interface GigabitEthernet0/0
R1(config-if)#ip address 192.168.1.254 255.255.255.0
R1(config-if)#ip pim sparse-dense-mode
^
% Invalid input detected at '^' marker.
R1(config-if)#ip pim sparse-dense-mode
^
% Invalid input detected at '^' marker.
R1(config-if)#eexit
^
% Invalid input detected at '^' marker.
R1(config-if)#exit
R1(config)# interface GigabitEthernet0/0
R1(config-if)#ip igmp join-group 239.1.1.1
^
% Invalid input detected at '^' marker.
R1(config-if)# exit
R1(config)#show ip igmp groups
^
% Invalid input detected at '^' marker.
R1(config)#
```

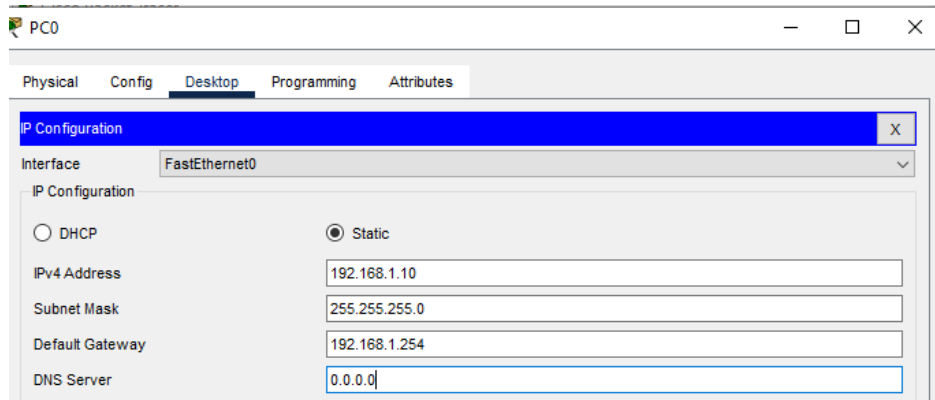
- Configuration du commutateur

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S
S(config)#interface vlan 1
S(config-if)#ip address 192.168.1.1 255.255.255.0
S(config-if)#

S>
S> ip default-gateway 192.168.1.1
      ^
% Invalid input detected at '^' marker.

S>enable
S#conf t
Enter configuration commands, one per line. End with CNTL/Z.
S(config)#
S(config)# ip default-gateway 192.168.1.1
S(config)# ip default-gateway 192.168.1.254
S(config)#
```

- Configuration des dispositifs



PC0

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

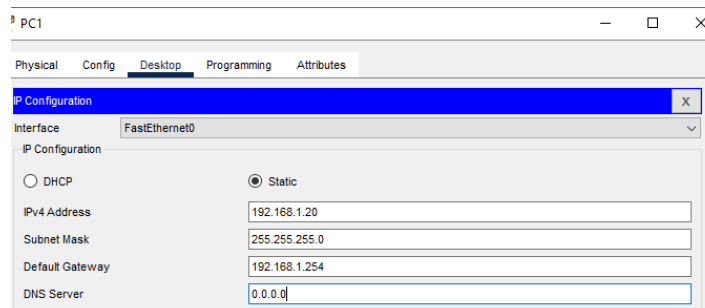
☐ DHCP ☒ Static

IPv4 Address 192.168.1.10

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.254

DNS Server 0.0.0.0



PC1

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

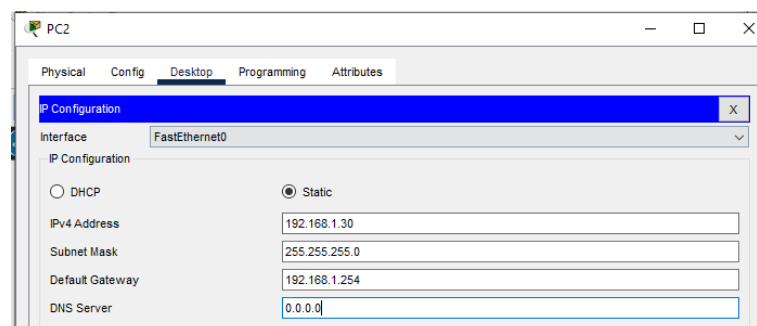
☐ DHCP ☒ Static

IPv4 Address 192.168.1.20

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.254

DNS Server 0.0.0.0



PC2

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

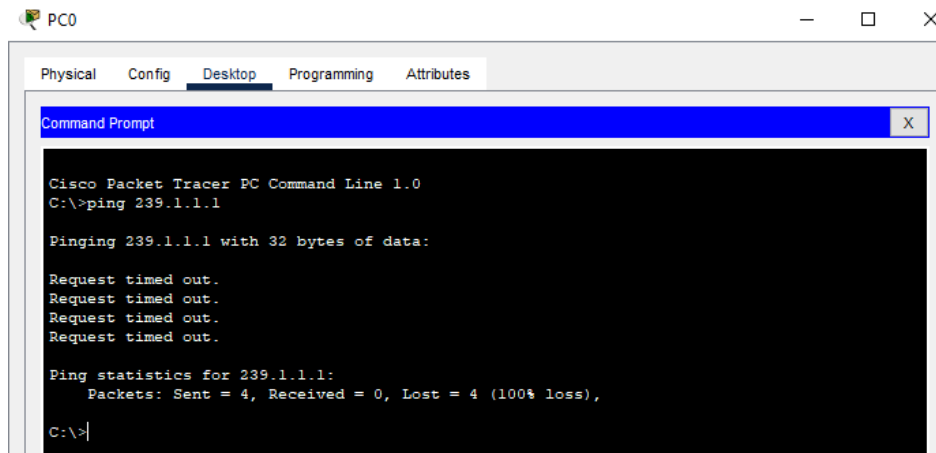
IPv4 Address 192.168.1.30

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.254

DNS Server 0.0.0.0

- : Configurer un Groupe Multicast



```
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#access-list 10 permit 239.1.1.1
R1(config)#interface GigabitEthernet0/0
R1(config-if)#ip igmp access-group 10
^
% Invalid input detected at '^' marker.
R1(config-if)#
```

CONCLUSION :

J'ai appris les compétences nécessaires pour Configuration le Protocole SMTP, IMAP, POP3 , et Exploration du Protocole ICMP et Protocole IGMP.