rapport de tp5 routage dynamique

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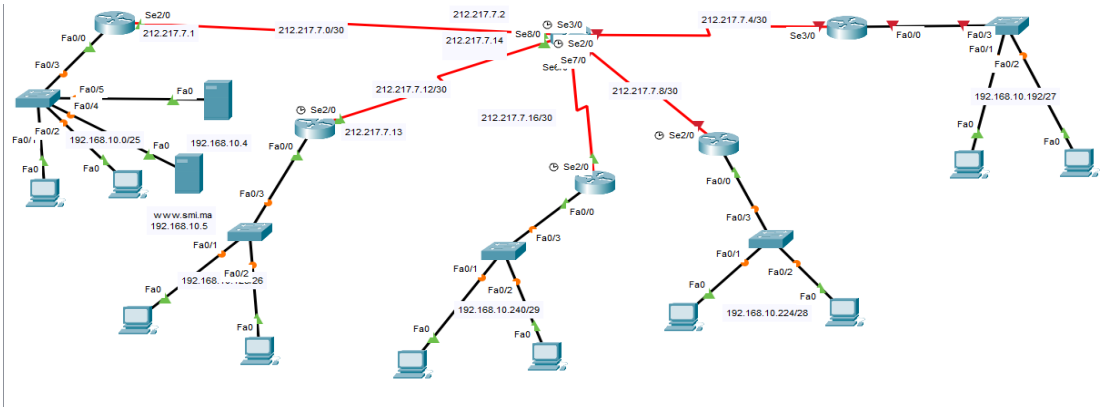
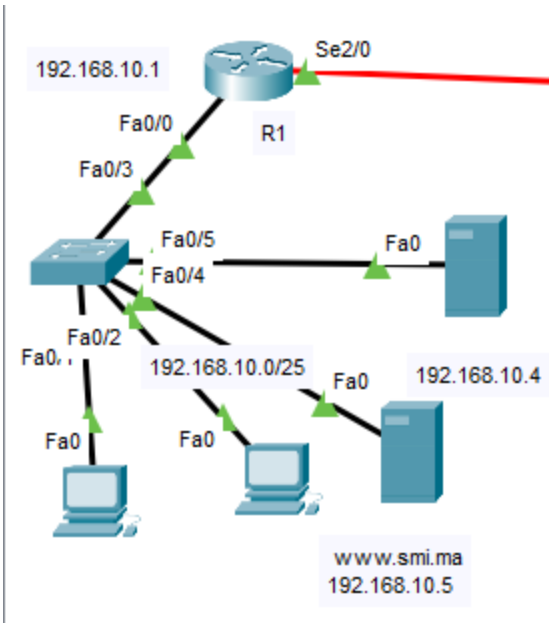
1/ SHEMA DE TP QUE VEUT FAIRE DANS CETTE RAPPORT OU (TP)



on premmier on va activer le dhcp pour affecter de ip adress pour tout les machine connet a les switch donc le dhcp configure seulemment dans les router qui connecter avec des switch dans ce shema ::

on premier on va configurer l'interface fa0/0 de router R1




```
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#inter Fa0/0
Router(config-if)#ip address 192.168.10.1 255.255.255.128
Router(config-if)#show interface Fa0/0
                  ^
```

configuration de dhcp pour les ip adress

```
Router(config-if)#ex
Router(config)#ip dhcp pool net1
Router(dhcp-config)#?
  default-router  Default routers
  dns-server      Set name server
  domain-name     Domain name
  exit            Exit from DHCP pool configuration mode
  network         Network number and mask
  no              Negate a command or set its defaults
  option          Raw DHCP options
Router(dhcp-config)#
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip dhcp pool net1
Router(dhcp-config)#defaul
Router(dhcp-config)#default-router 192.168.10.1
Router(dhcp-config)#dns
Router(dhcp-config)#dns-server 192.168.10.5
Router(dhcp-config)#networ
Router(dhcp-config)#network 192.168.10.0 255.255.255.128
Router(dhcp-config)#ex
Router(config)#ex
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

Configuration d'une route statique

Dans la commande suivante, le réseau à atteindre est le réseau 192.168.10.1/25 et l'interface utilisée pour joindre le réseau est ethernet 0/0.

On peut aussi utiliser l'adresse IP du prochain routeur.

```
Router#con ft
% Ambiguous command: "con ft"
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#ip route 0.0.0.0 0.0.0.0 Se3/0
Router(config)#
```

configuration de interface Se2/0 de meme router

```
Router(config)#
Router(config)#inter Se2/0
Router(config-if)#ip adress
Router(config-if)#ip adress  212.217.7.1 255.255.255.252
                      ^
% Invalid input detected at '^' marker.

Router(config-if)#ip address  212.217.7.1 255.255.255.252
Router(config-if)#no shut
Router(config-if)#
```

configuration de router pour les autre router parmi les deffrent réseaux

```
Router(config)#ip route 212.217.7.12 255.255.255.252 Se2/0
Router(config)#ip route 212.217.7.16 255.255.255.252 Se2/0
Router(config)#ip route 212.217.7.8 255.255.255.252 Se2/0
Router(config)#ip route 212.217.7.4 255.255.255.252 Se2/0
Router(config)#
```

pour le router R2

on va affecter ip adress pour l 'interface Se3 et acctiver le routage pour le reseaux 192.168.10.0

```
Router>en
Router#hostname r2
                ^
% Invalid input detected at '^' marker.

Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname r2
r2(config)#inter Se2/0
r2(config-if)#ip adre
r2(config-if)#ip add
r2(config-if)#ip address 212.217.7.2 255.255.255.252
% 212.217.7.0 overlaps with Serial3/0
r2(config-if)#inter Se3/0
r2(config-if)#ip address 212.217.7.2 255.255.255.252
r2(config-if)#no shutdown
r2(config-if)#ex
r2(config)#ip route 192.168.10.0 255.255.255.128 Se2/0
r2(config)#end
r2#
%SYS-5-CONFIG_I: Configured from console by console

r2#
```

configure les routage entrre resaux 212.217.7.0 et 192.168.10.128 pour le konnue

```
r2>en
r2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
r2(config)#inter Se3/0
r2(config-if)#ip route 192.168.10.128 255.255.255.192 Fa0/0
r2(config)#
```

activer le routage parmi l'interface se8/0 ver les autre reseau sertumment le server dns

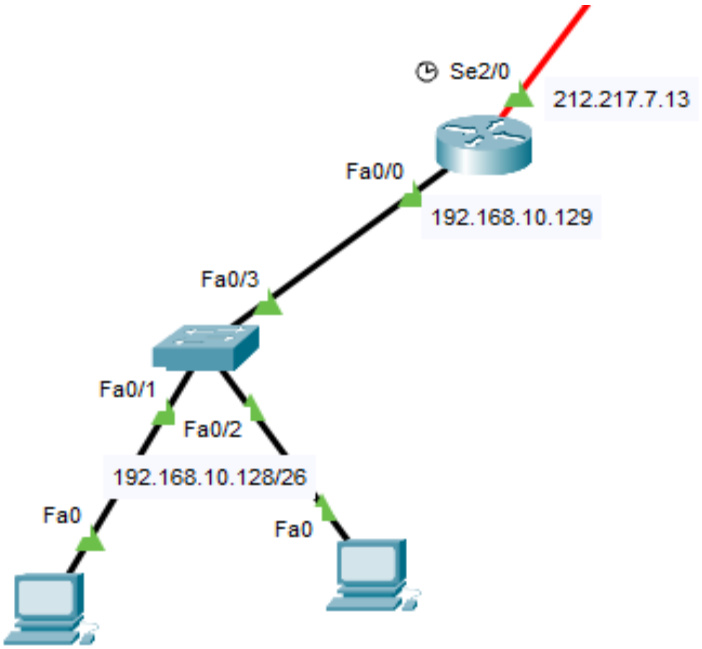
```
r2>en
r2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
r2(config)#inter Se6/0
r2(config-if)#ip add
r2(config-if)#ip address 212.217.7.18 255.255.255.252
r2(config-if)#no shut
r2(config-if)#ex
r2(config)#ip route 192.168.10.240 255.255.255.248 Fa0/0
r2(config)#ip route 192.168.10.128 255.255.255.182 Fa0/0
%Inconsistent address and mask
r2(config)#ip route 192.168.10.128 255.255.255.192 Fa0/0
r2(config)#ip route 212.217.7.0 255.255.255.252 Se2/0
r2(config)#ip route 192.168.10.1 255.255.255.128 Fa0/0
%Inconsistent address and mask
r2(config)#ip route 192.168.10.0 255.255.255.128 Fa0/0
r2(config)#
```

activer le routage parmi l'interface se6

/0 ver les autre reseau sertumment le server dns

```
R3>en
R3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#inter Se2/0
R3(config-if)#ip route 212.217.7.0 255.255.255.252 Se3/0
R3(config)#ip route 192.168.10.0 255.255.255.128 Fa0/0
R3(config)#ip route 192.168.10.0 255.255.255.128 Fa0/0
```

configuration de routers



pour voir comment va configurer on va taper cmd show running-config

car il est dega configuré

1/pour le dhcp server

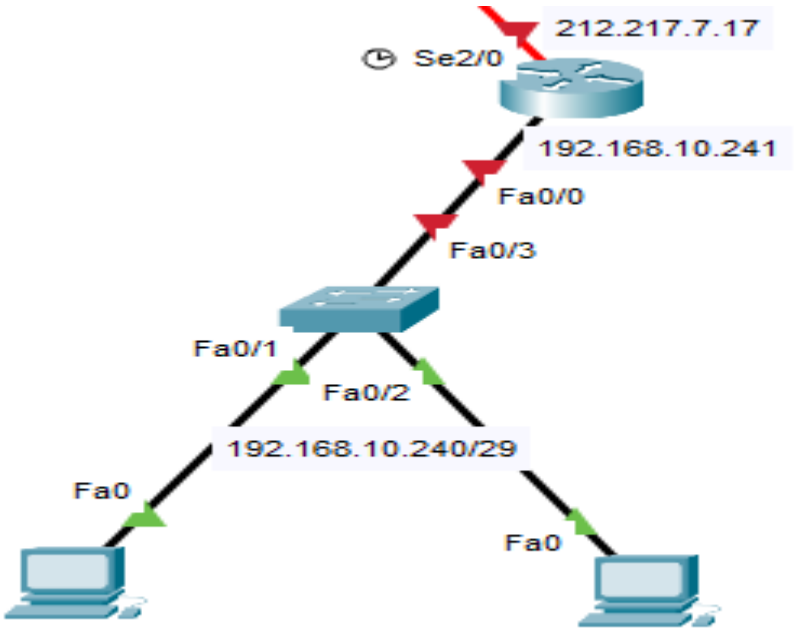
```
!
ip dhcp pool net2
 network 192.168.10.128 255.255.255.192
 default-router 192.168.10.129
 dns-server 192.168.10.5
!
```

2/pour les interface

```
interface FastEthernet0/0
 ip address 192.168.10.129 255.255.255.192
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 212.217.7.13 255.255.255.252
 clock rate 2000000
!
```

3/pour le routage

```
!
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 212.217.7.12 255.255.255.252 Serial3/0
!
```



1/pour le dhcp server

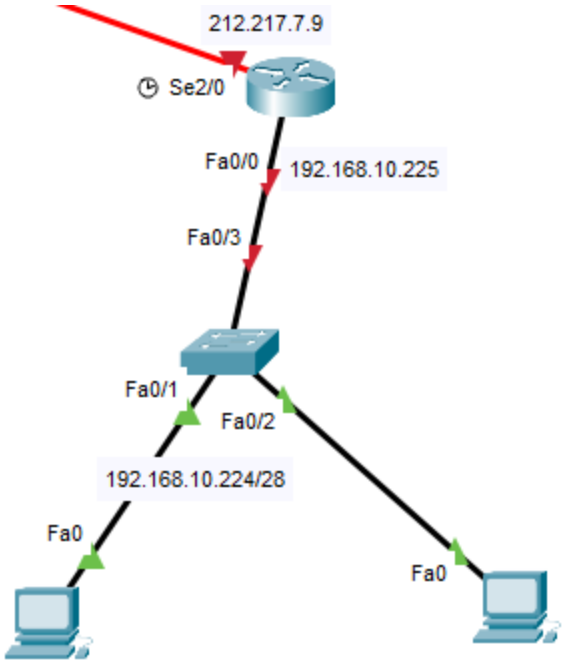
```
ip dhcp pool net3
 network 192.168.10.240 255.255.255.248
 default-router 192.168.10.241
 dns-server 192.168.10.5
```

2/pour les interface

```
!
interface FastEthernet0/0
 ip address 192.168.10.241 255.255.255.248
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 no ip address
 encapsulation ppp
 clock rate 64000
!
interface Serial3/0
 ip address 212.217.7.17 255.255.255.252
 clock rate 2000000
!
interface FastEthernet4/0
 no ip address
 shutdown
!
```

3/pour le routage

```
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 212.217.7.0 255.255.255.252 Serial3/0
ip route 212.217.7.4 255.255.255.252 Serial2/0
ip route 192.168.10.0 255.255.255.128 212.217.7.10
ip route 0.0.0.0 0.0.0.0 212.217.7.18
ip route 192.168.10.0 255.255.255.128 212.217.7.18
!
```



1/pour le dhcp server

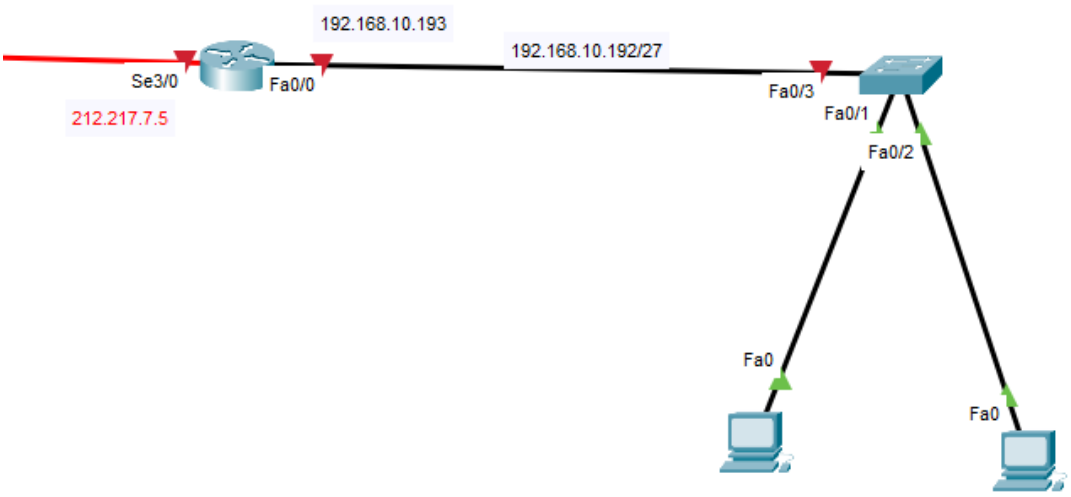
```
ip dhcp pool net4
 network 192.168.10.224 255.255.255.240
 default-router 192.168.10.226
 dns-server 192.168.10.5
!
```

2/pour les interface

```
interface FastEthernet0/0
 ip address 192.168.10.226 255.255.255.240
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 ip address 212.217.7.9 255.255.255.252
 clock rate 56000
!
interface Serial3/0
 no ip address
 clock rate 2000000
 shutdown
```

3/pour le routage

```
ip classless
ip route 0.0.0.0 0.0.0.0 FastEthernet0/0
ip route 192.168.10.0 255.255.255.128 212.217.7.10
ip route 0.0.0.0 0.0.0.0 212.217.7.10
!
```



1/pour le dhcp server

```
ip dhcp pool net5
 network 192.168.10.192 255.255.255.224
 default-router 192.168.10.193
 dns-server 192.168.10.5
```

2/pour les interface

```
interface FastEthernet0/0
 ip address 192.168.10.193 255.255.255.224
 duplex auto
 speed auto
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Serial2/0
 no ip address
 clock rate 2000000
 shutdown
!
interface Serial3/0
 ip address 212.217.7.5 255.255.255.252
!
interface FastEthernet4/0
 no ip address
 shutdown
```

3/pour le routage

```
ip classless
ip route 192.168.10.0 255.255.255.128 212.217.7.6
ip route 0.0.0.0 0.0.0.0 212.217.7.6
!
```

pour tout les router que veut voir en haut on a fait la nme configuration de l;interface et de dhcp server configuration total et le routage statitique par default parmi l'interface

test de connection entre les router fair un ping de pc de reseaux 192.168.10.128 sur le reseau de dns

```
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=66ms TTL=125
Reply from 192.168.10.2: bytes=32 time=4ms TTL=125
Reply from 192.168.10.2: bytes=32 time=50ms TTL=125
Reply from 192.168.10.2: bytes=32 time=10ms TTL=125

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 4ms, Maximum = 66ms, Average = 32ms
```

test de connection entre les router fair un ping de pc de reseaux 192.168.10.224 sur le reseau de dns

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=3ms TTL=125
Reply from 192.168.10.2: bytes=32 time=4ms TTL=125
Reply from 192.168.10.2: bytes=32 time=3ms TTL=125
Reply from 192.168.10.2: bytes=32 time=58ms TTL=125

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 58ms, Average = 17ms

C:\>
```

test de connection entre les router fair un ping de pc de reseaux 192.168.10.192 sur le reseau de dns

```
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=69ms TTL=125
Reply from 192.168.10.2: bytes=32 time=91ms TTL=125
Reply from 192.168.10.2: bytes=32 time=10ms TTL=125
Reply from 192.168.10.2: bytes=32 time=65ms TTL=125

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 91ms, Average = 58ms

C:\>
```

test de connection entre les router fair un ping de pc de reseaux 192.168.10.240 sur le reseau de dns

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time=3ms TTL=125
Reply from 192.168.10.2: bytes=32 time=3ms TTL=125
Reply from 192.168.10.2: bytes=32 time=55ms TTL=125
Reply from 192.168.10.2: bytes=32 time=3ms TTL=125

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 3ms, Maximum = 55ms, Average = 16ms

C:\>
```