

**Un peuple, un but, une foi**

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**Ecole Supérieure de Technologie et Management**

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**L2 réseaux Telecom**

Professeur

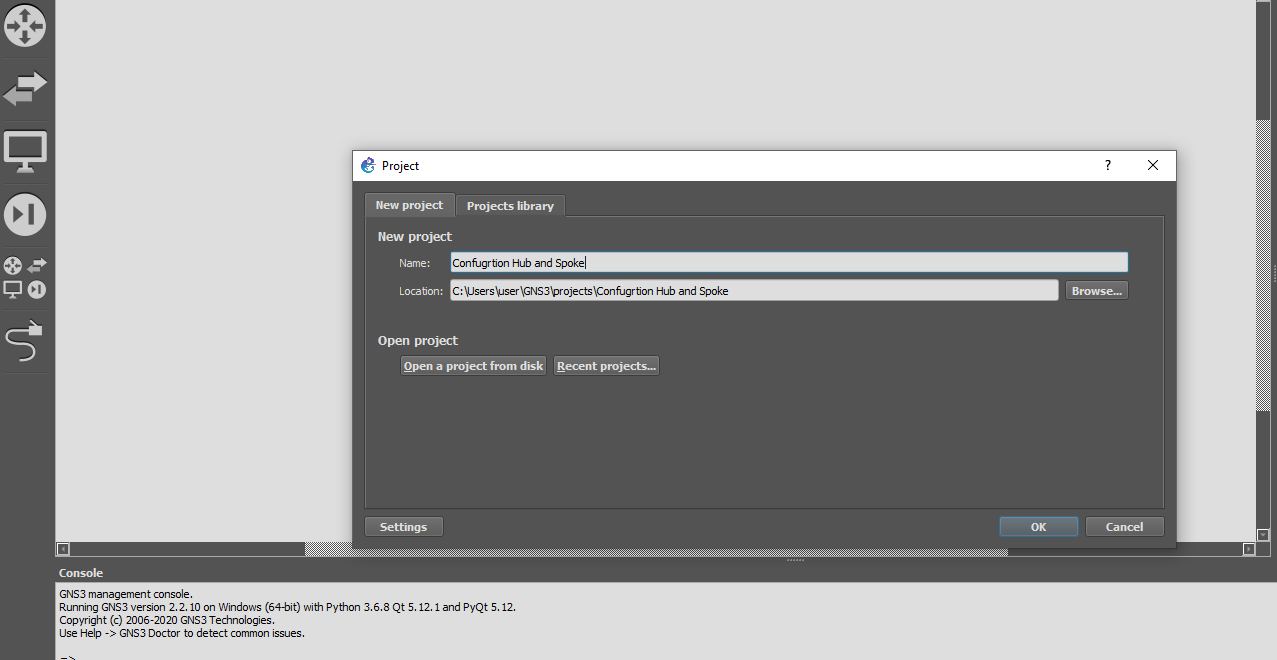
**Dr. Brahime Diouf**

Année scolaire 2019/202

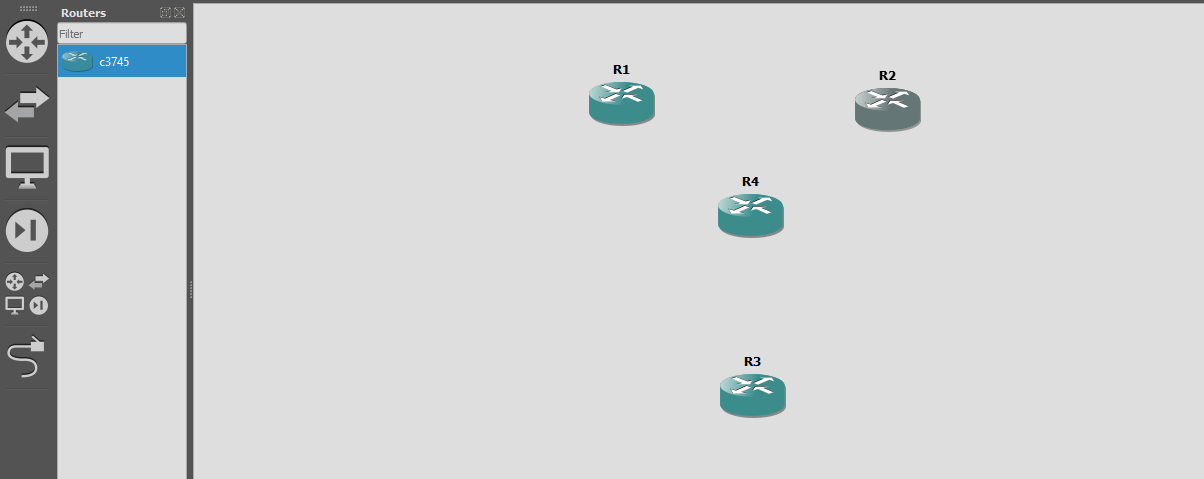
**TP FRAME-RELAY**

**LABO 2 : Configuration HUB and SPOKE**

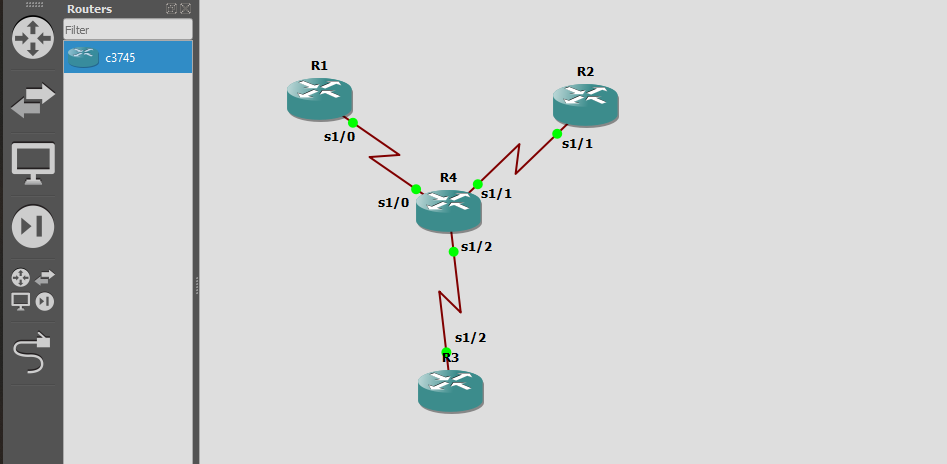
On lance ***GNS3*** ensuite on donne un ***nom*** au fichier



On place les **routeurs** pour former Notre topologie



On relie les routeurs et on les allume

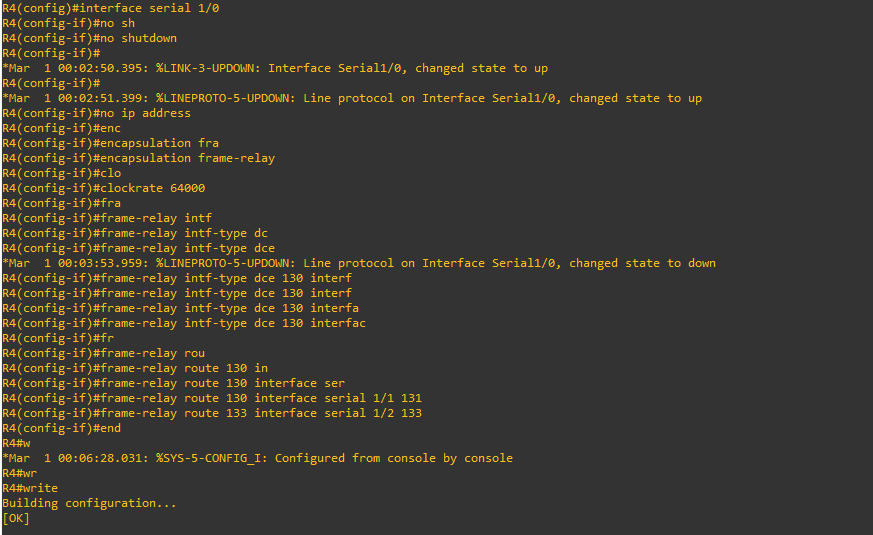


Configuration des switches et routeurs

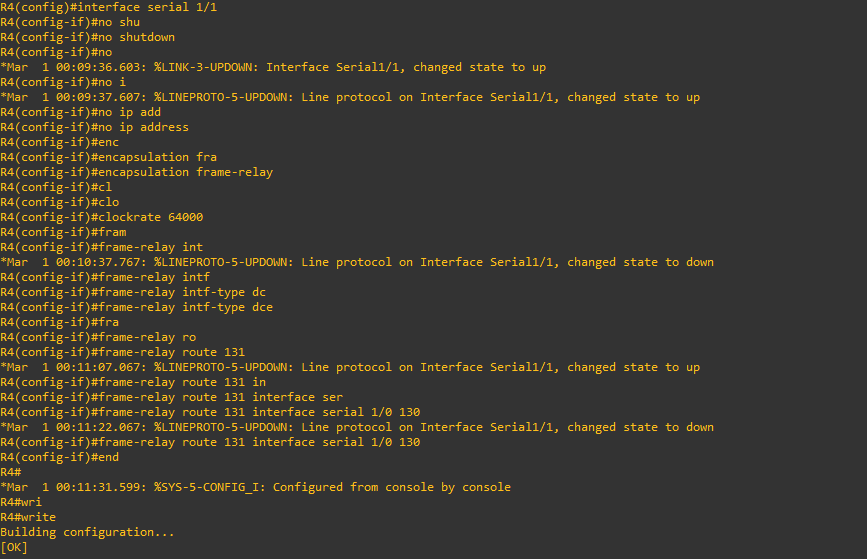
On entre dans le routeur dans mon cas c’est le R4#, qui nous servira de switch on configure nos 3 interfaces le 1/0, 1/1,1/2 dans mon cas.

On commence la configuration En tapant la première commande ***configure terminal*** car on peut rien faire s’agissant la configuration sans taper cette commande.

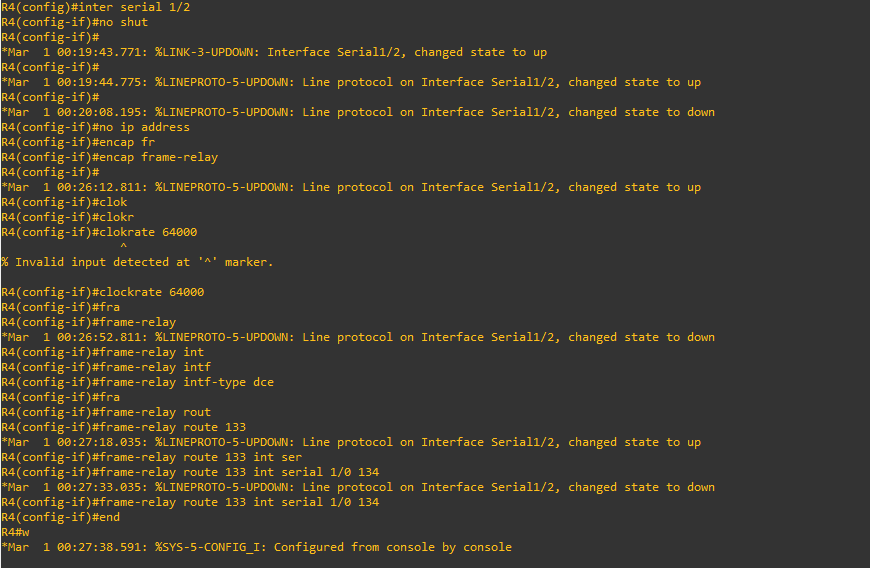
On configure et active l’interface Serial 1/0



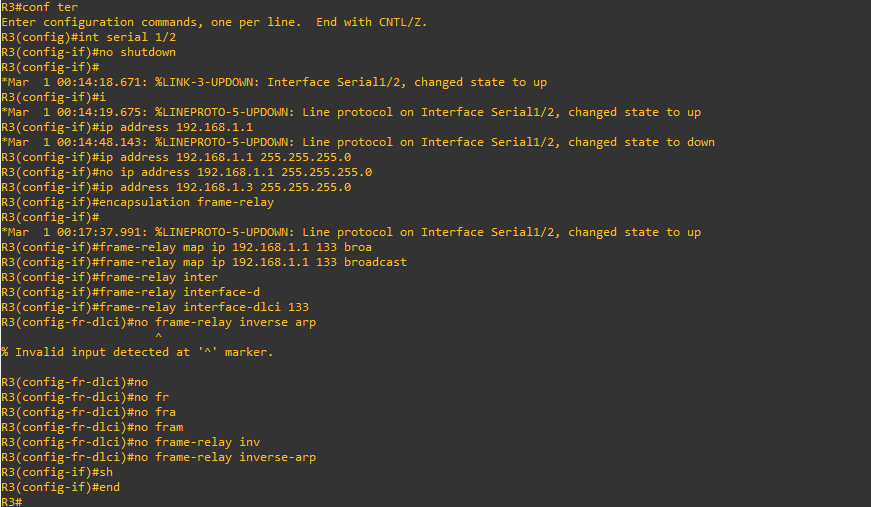
On continue avec l’interface serial 1/1



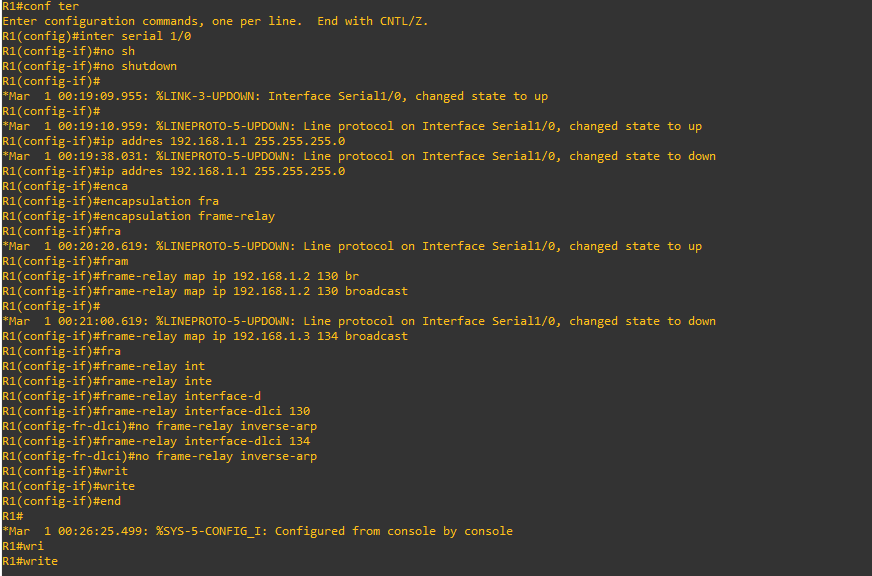
Pour finaliser on enchaîne avec l’interface sérial 1/2



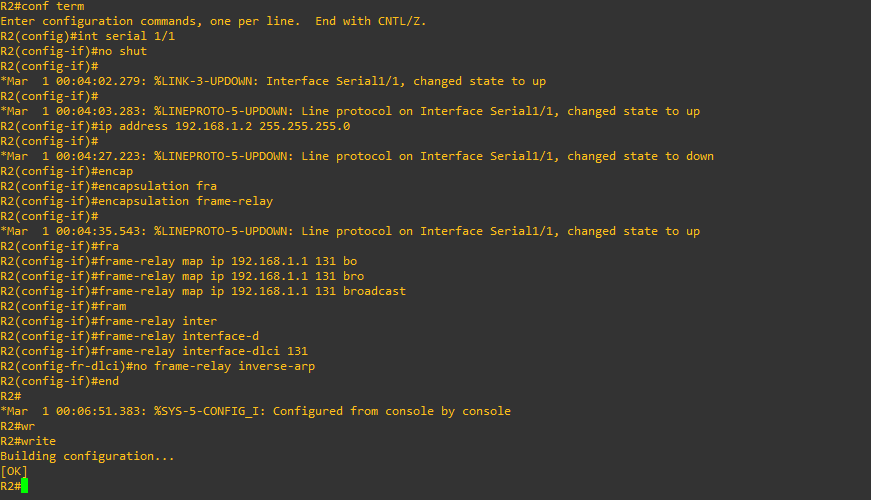
On procède maintenant à la configuration du router 3 le ***R3#***



Maintenant c’est au tour du routeur 1 ou ***R1#***

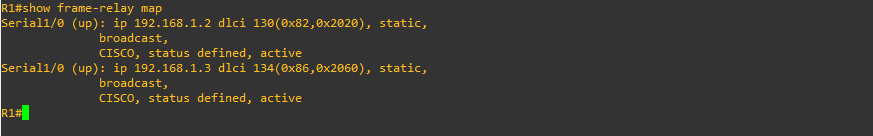


On finalise avec le routeur 2 R2#

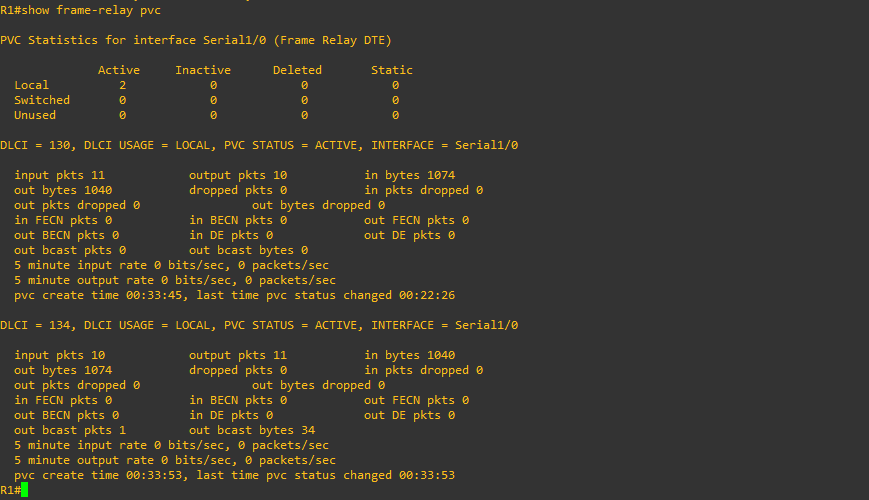


**Diagnostic du routeur 1 ou R1#**

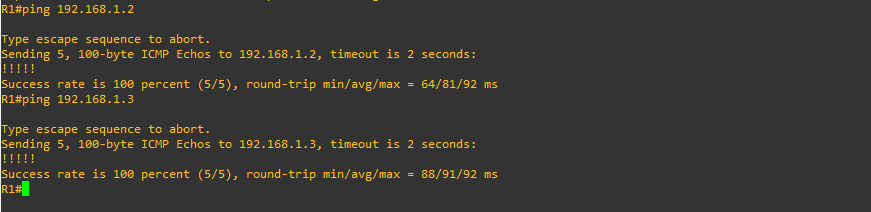
On vérifie le mappage avec la commande ***show framme-relay map***



On regarde ensuite les interfaces actives avec la commande ***show frame-relay pvc***

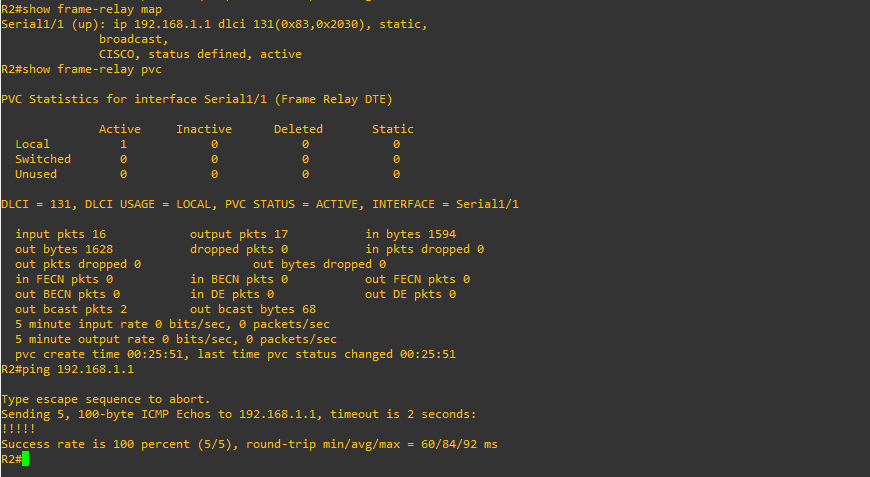


On finalise notre diagnostique avec le Ping aux adresse ***192.168.1.2*** et ***192.168.1.3***

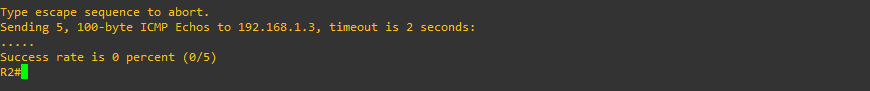


**Diagnostic du deuxième routeur ou R2#**

**On fait le show frame-relay map, le show frame-relay pvc et le Ping**

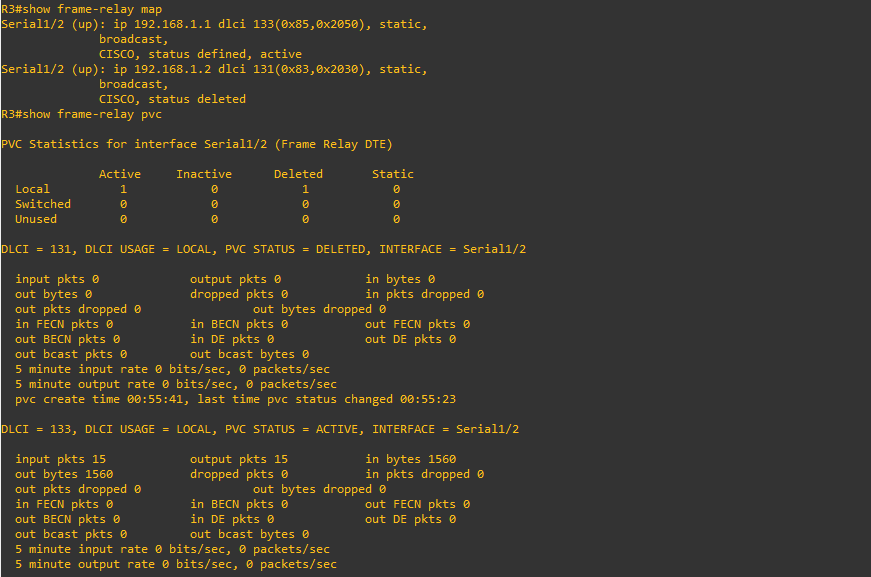


LE PING au **192.168.1.3** ne fonctionne pas car on pas configure

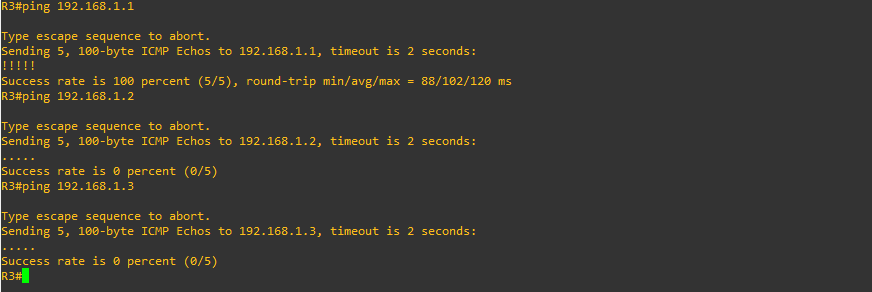


**Diagnostic au R3#**

**On fait le show frame-relay map, le show frame-relay pvc**

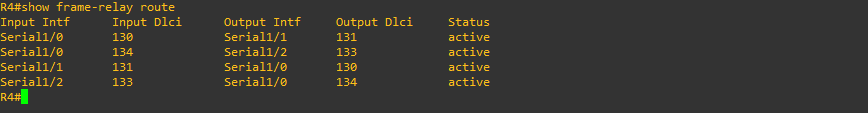


Le Ping au **192.168.1.1** fonctionne mais le Ping aux **192.168.1.2** et **192.168.1.3** ne fonctionne pas



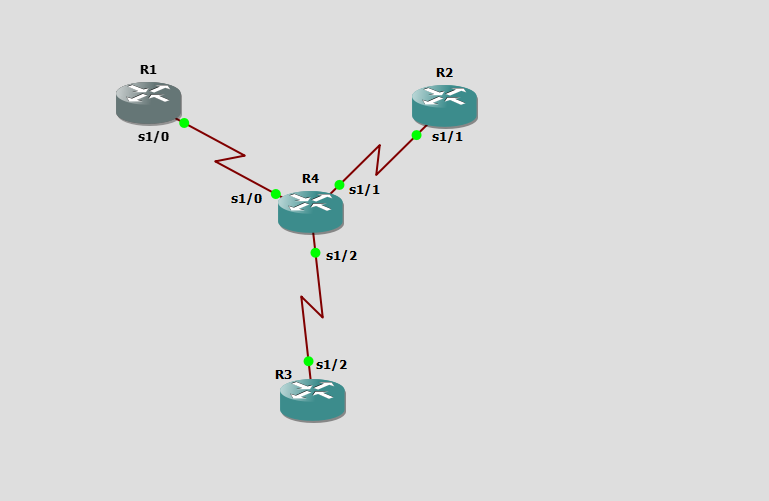
**Diagnostic du SWITCH(R4#)**

Pour faire le diagnostic on tape la commande ***show frame-relay route***, cela nous informera des différents interfaces dlci et leurs états c’est à dire sils sont active ou pas



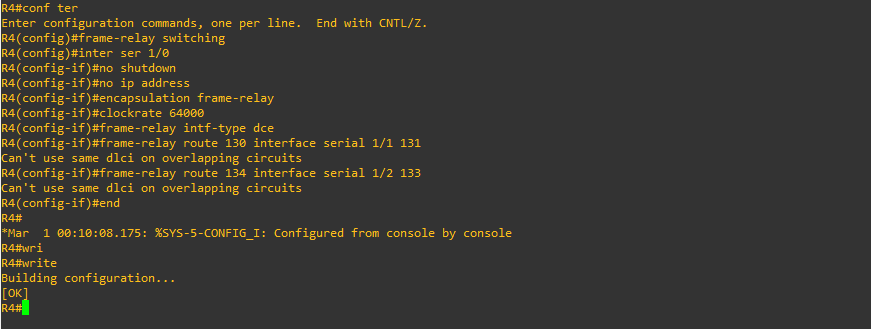
**FIN de la configuration HUB and spoke**

**LABO 3 : Connection spoke to spoke**

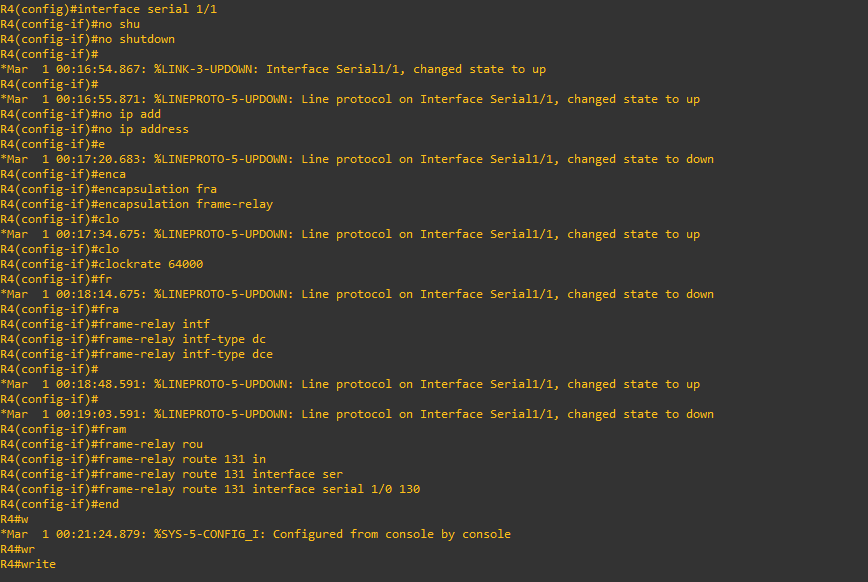
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*Configuration du routeur R4# qu’on va utiliser comme le switch*

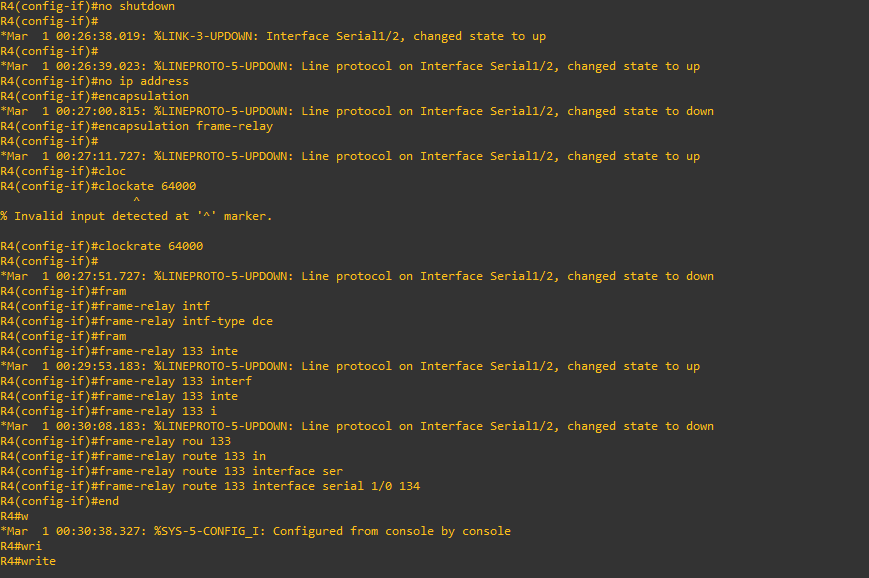
Configuration de interface serial 1/0



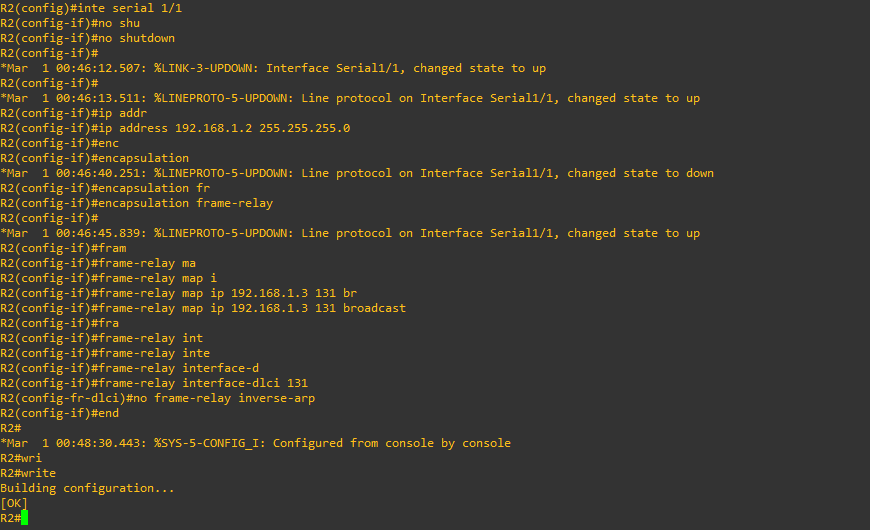
Configuration de l’interface serial 1/1



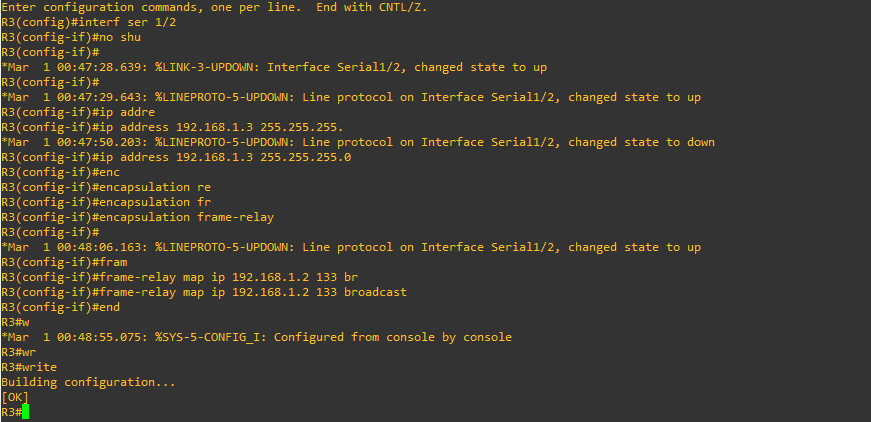
Configuration de l’interface 1/2



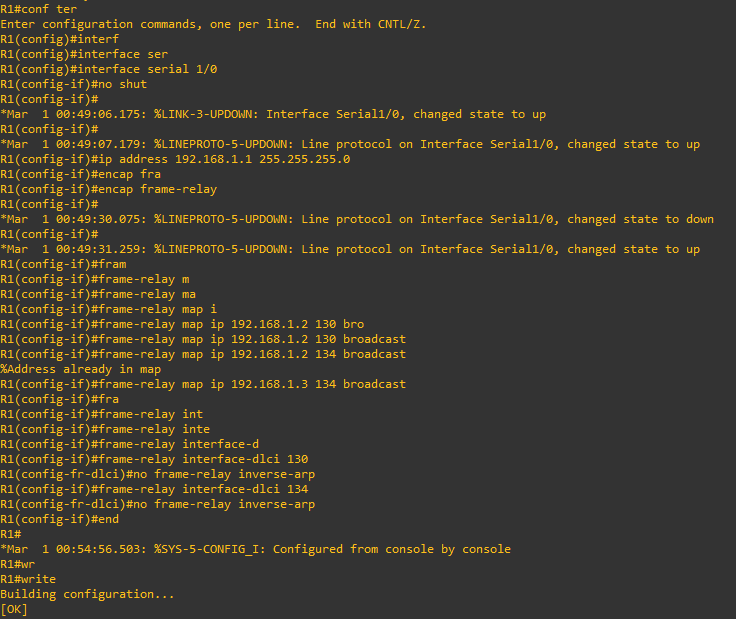
Configuration du routeur 2



Configuration du routeur r3

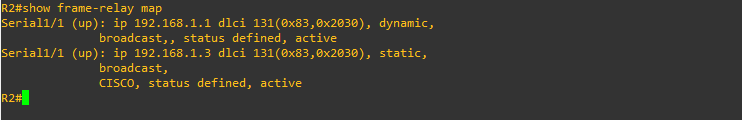


Configuration du routeur r1

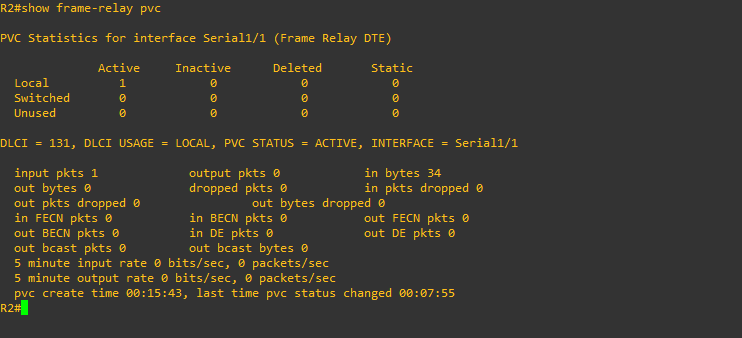


Diagnostic du r2

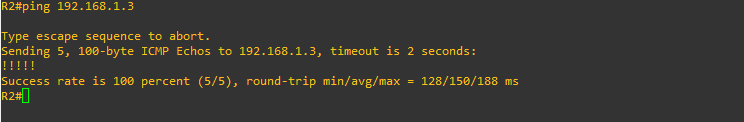
map



Pvc

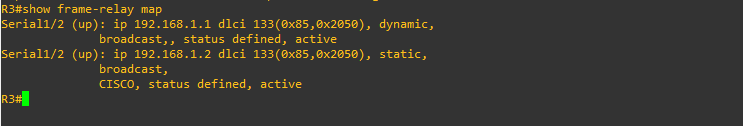


Ping

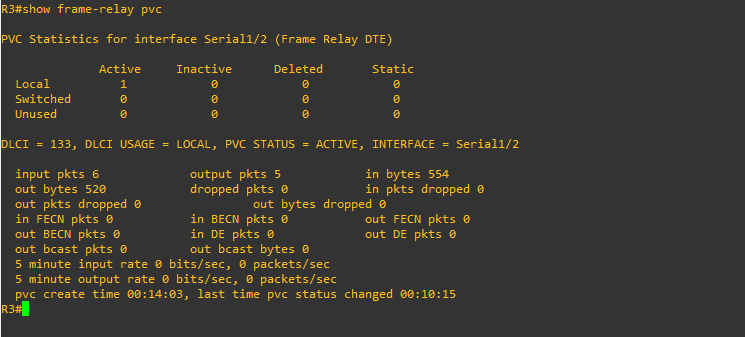


Diagnostic sur r3

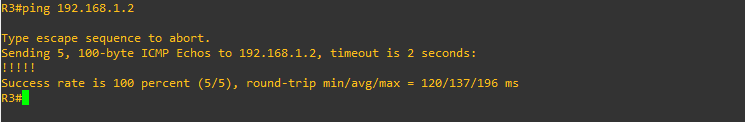
map



Pvc

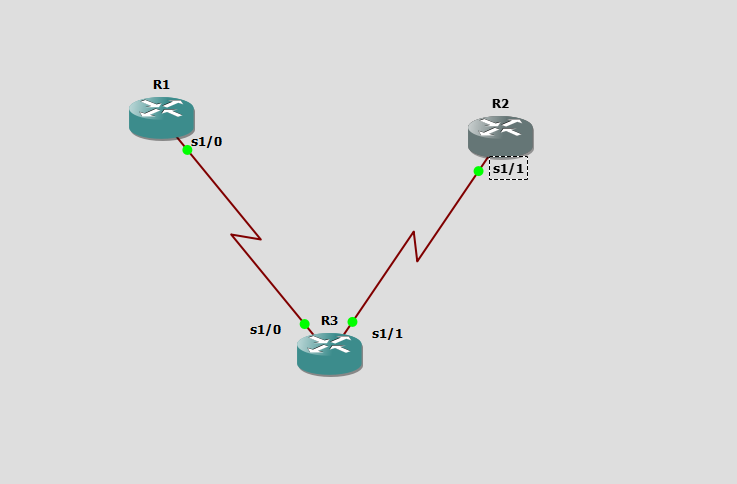


Ping

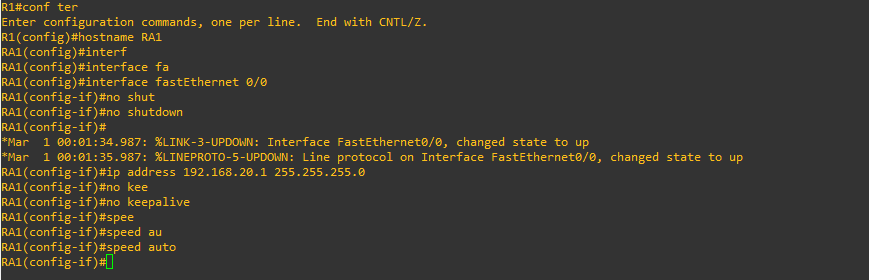


**Fin de la configuration spoke to spoke**

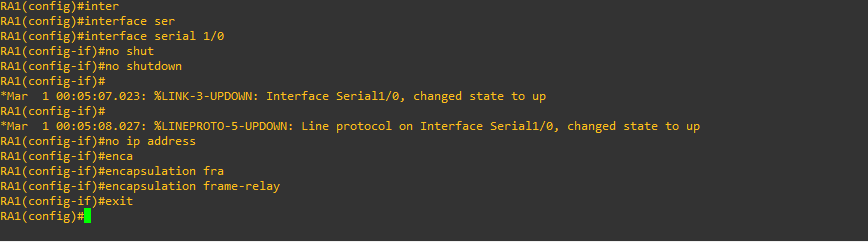
**LABO 4 : Sous interfaces point-to-point**



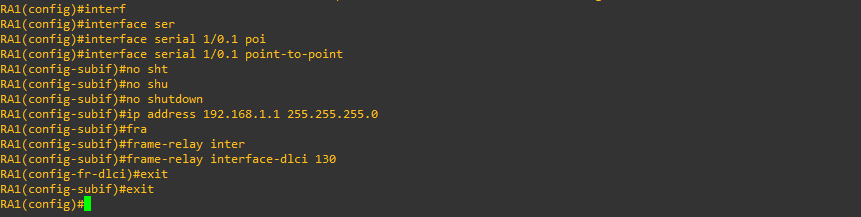
On change le nom du router en premier, Il y a quelques particularités dans cette configuration car ici il y a l’interface fastEthernet et on doit l’activer aussi avant d’activer l’interface 1/0



On fait de même pour l’interface 1/1



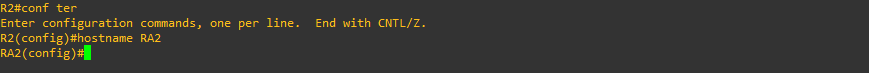
On active le sous interfaces 1/0.1 point to point



On donne les adresses réseaux



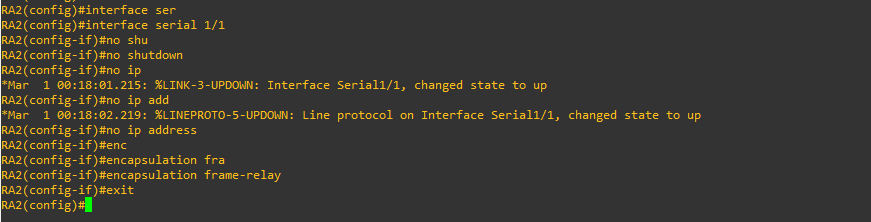
On change le nom du routeur 2 en premier en suite on procède a la configuration comme on a fait au routeur 1



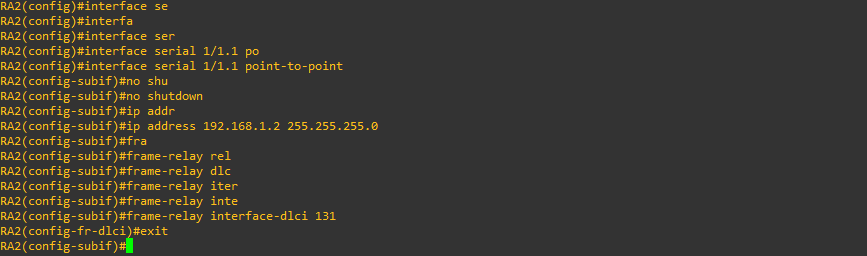
Cette fois si on active le fastEthernet 0/1



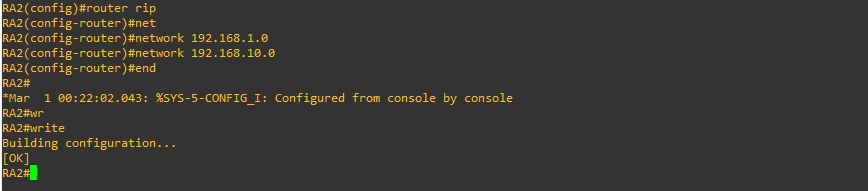
On active aussi l’interface 1/1



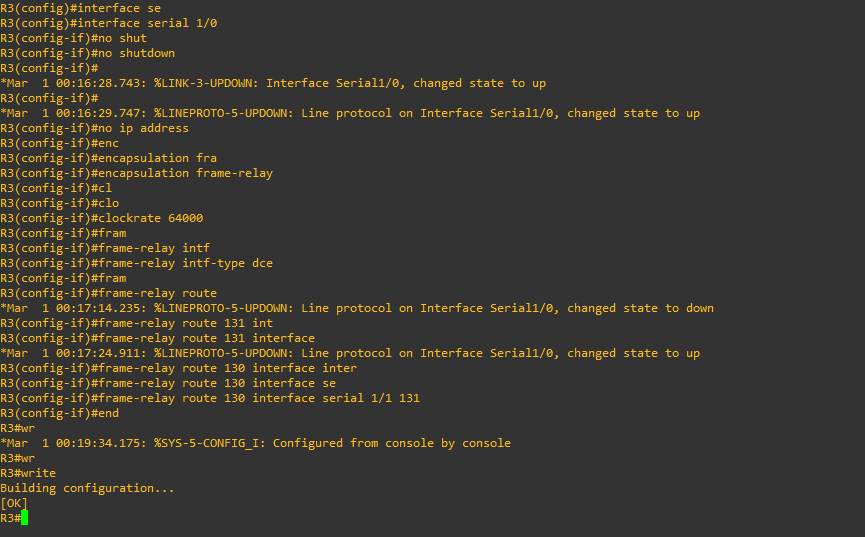
Activation du sous interface



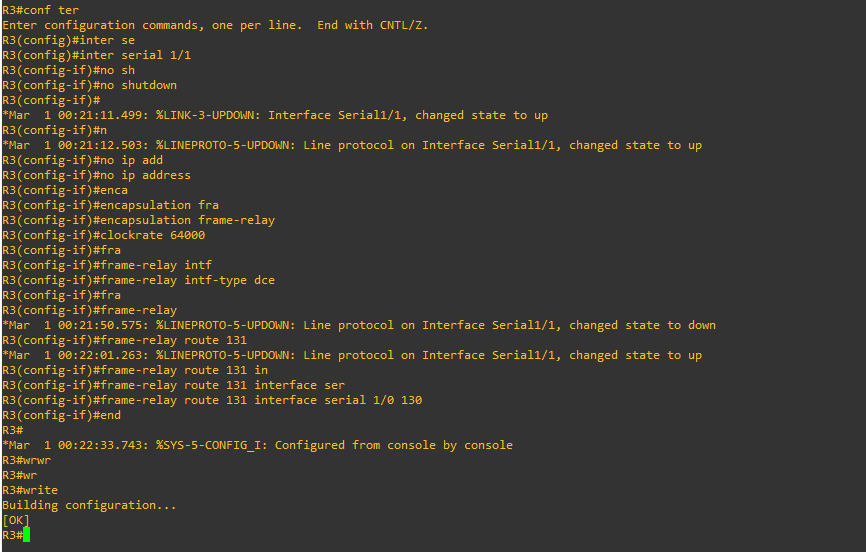
On donne l’adresse réseaux



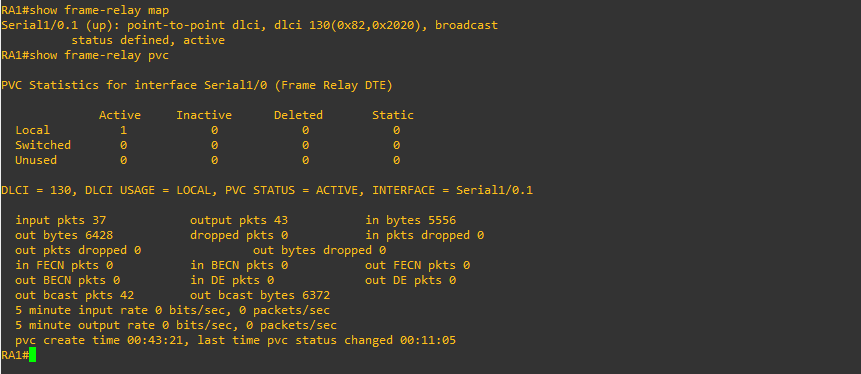
CONFIGUATION DU Switch



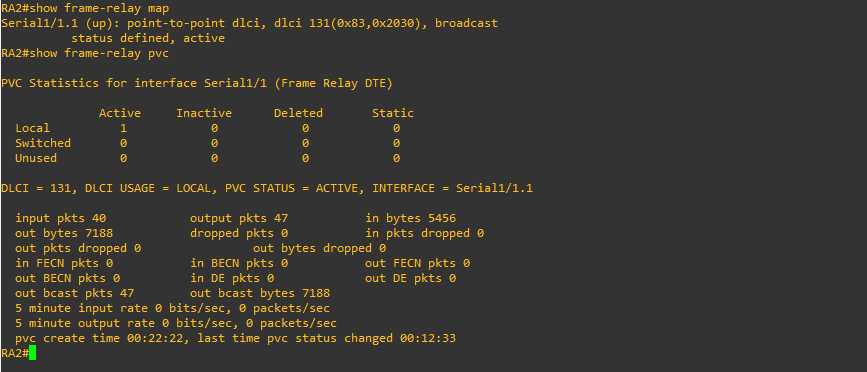
CONFIGURATION DU ROUTER 3



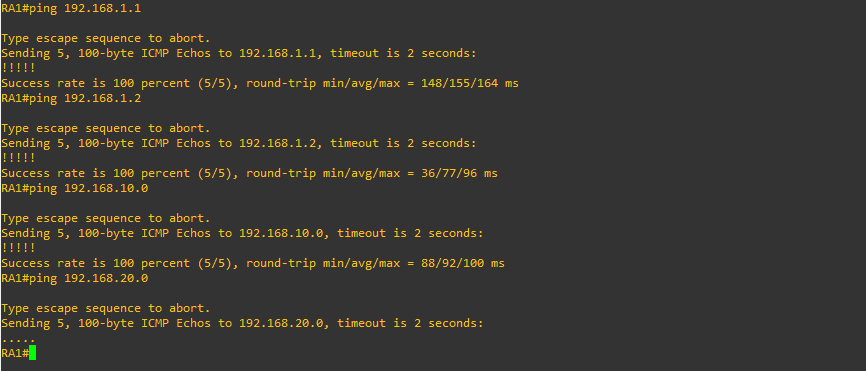
Show frame-relay map RA1



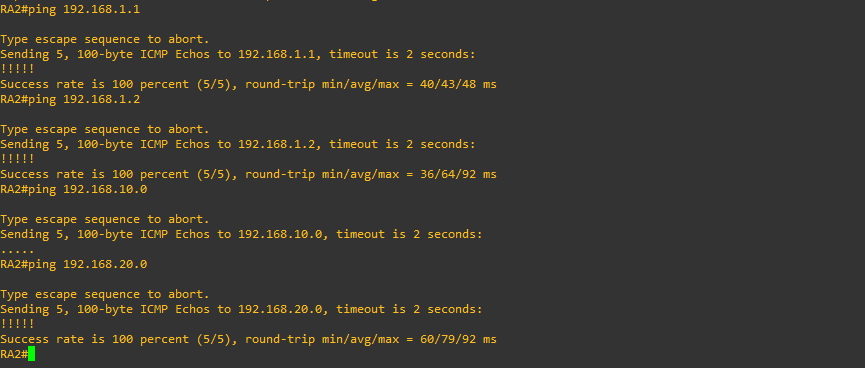
Show frame-relay map RA2



Ping du RA1

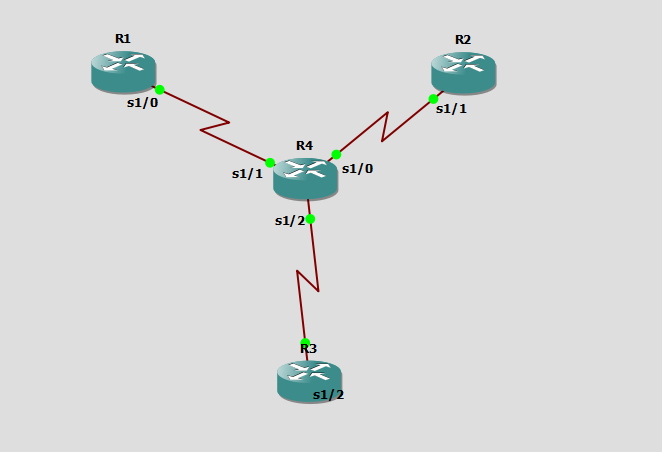


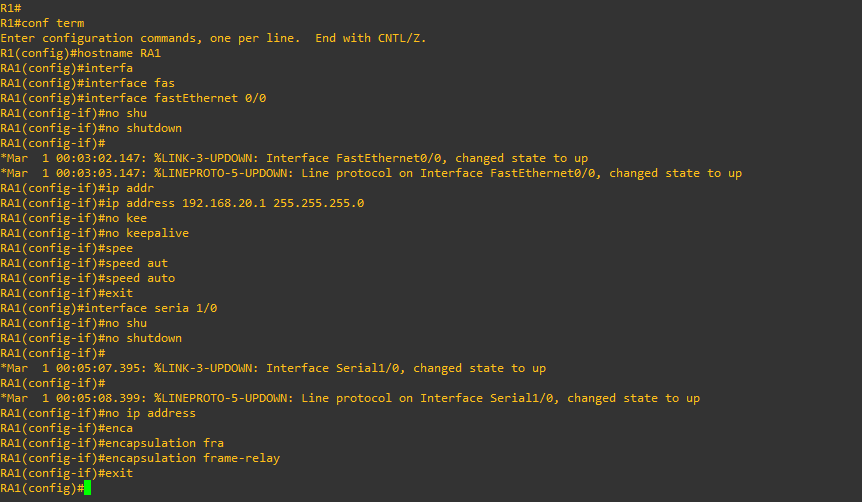
Ping du RA2



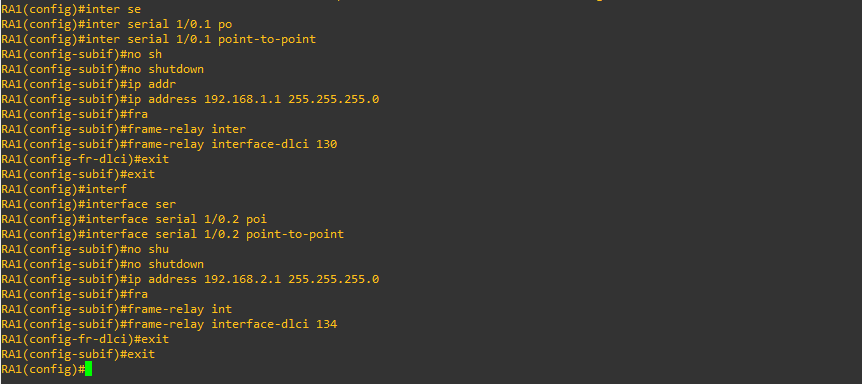
**FIN**

**LABO 5 : Sous interface Hub and spoke**

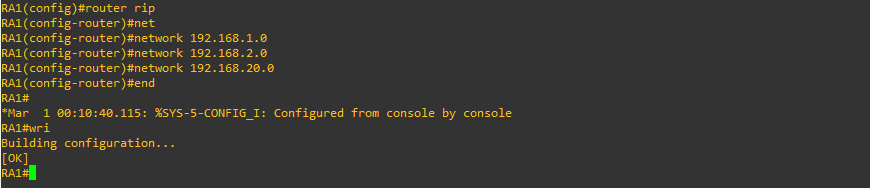
  
configuration du router 1



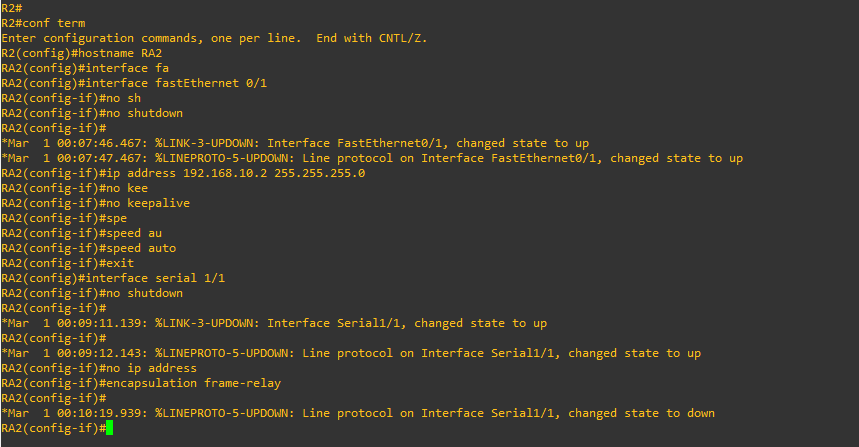
Interfaces

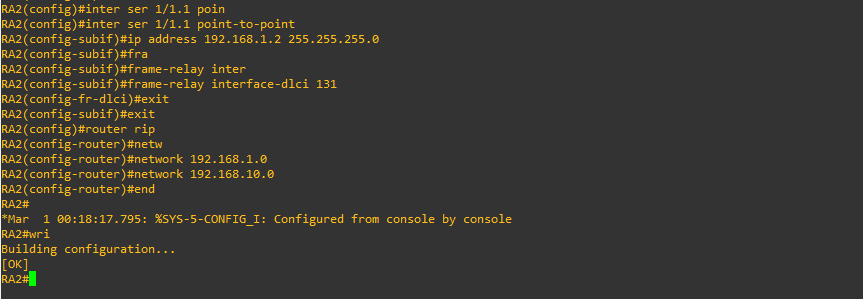


Rip

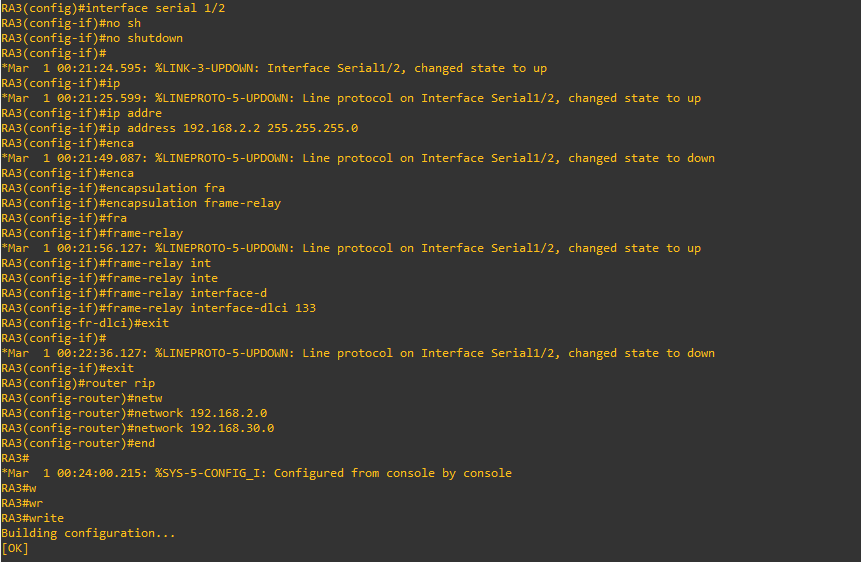


Configuration du routeur 2

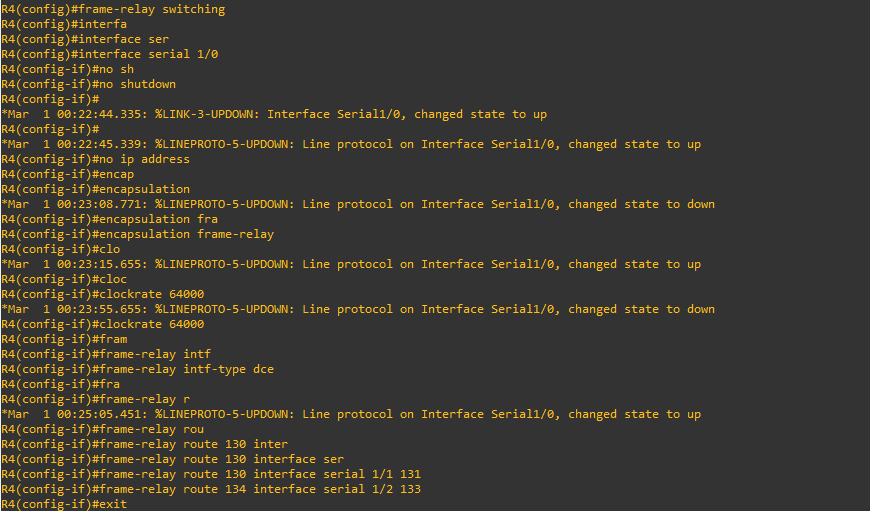


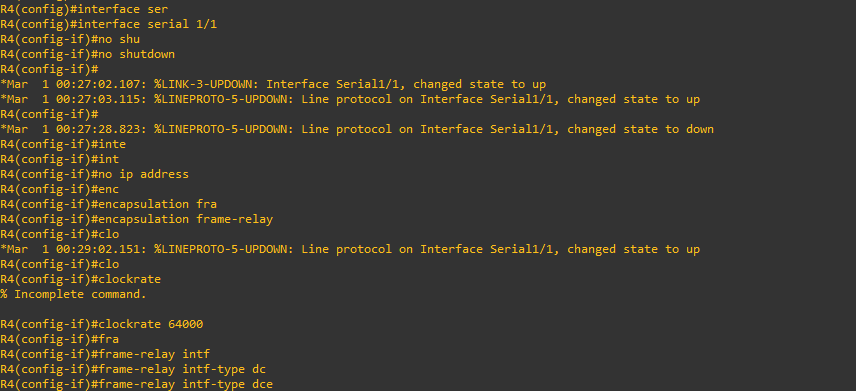


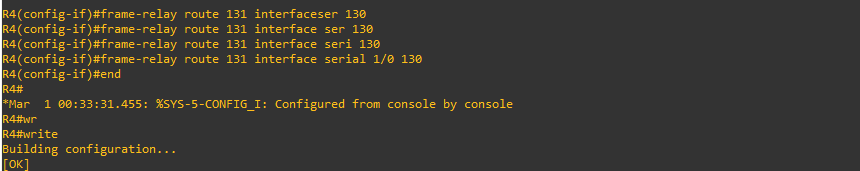
R3

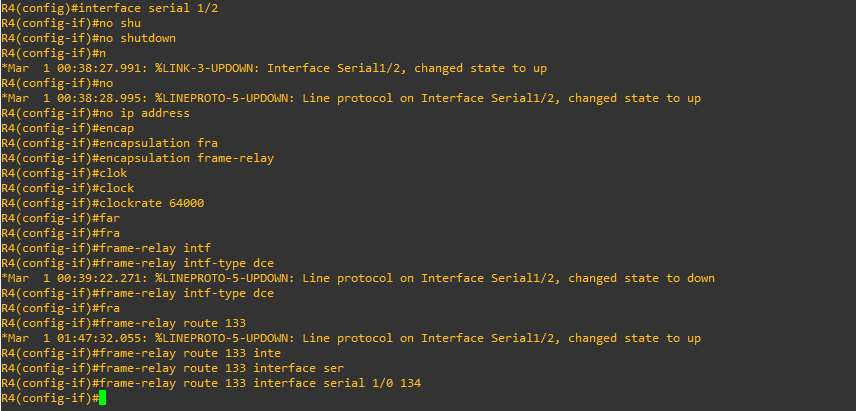


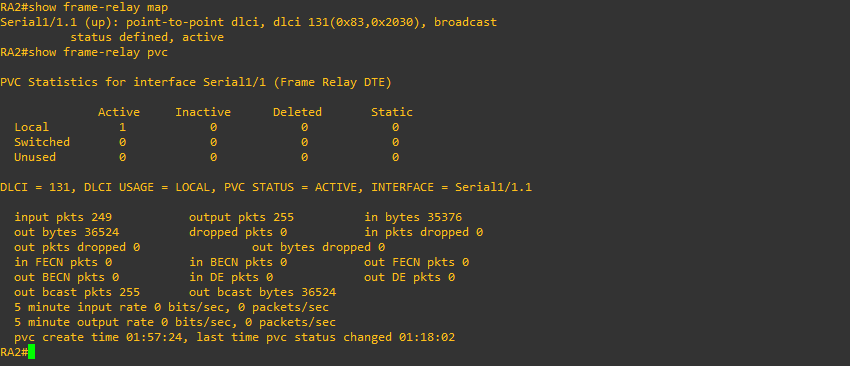
CONFIGURATION DU SWITCH



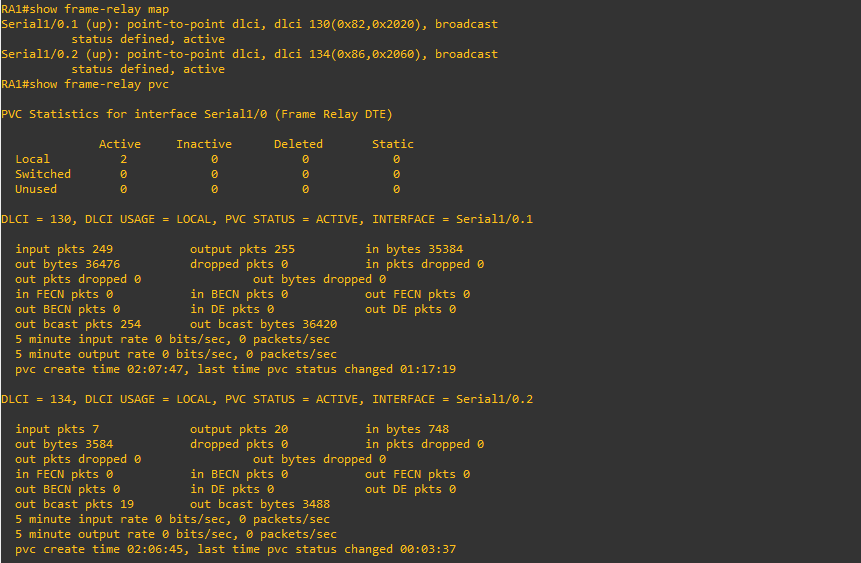




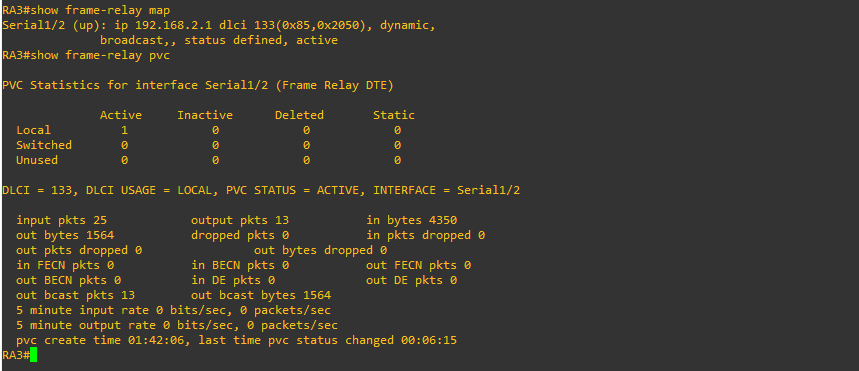
Diagnostics



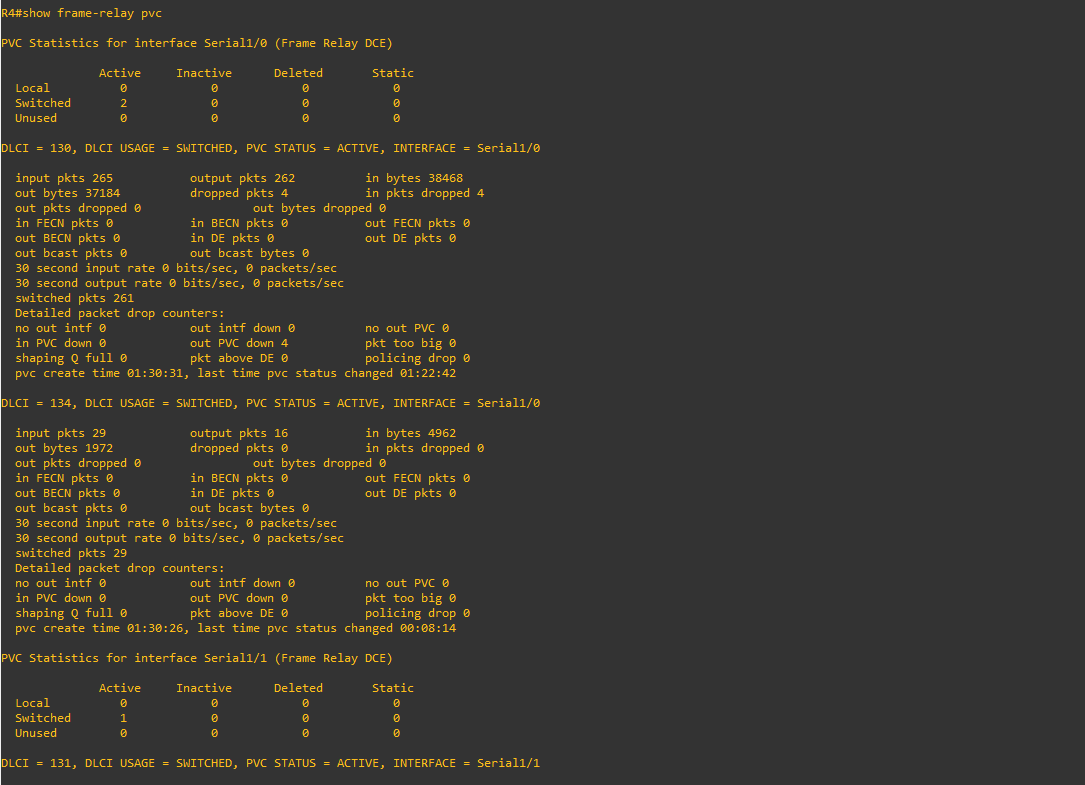
R1

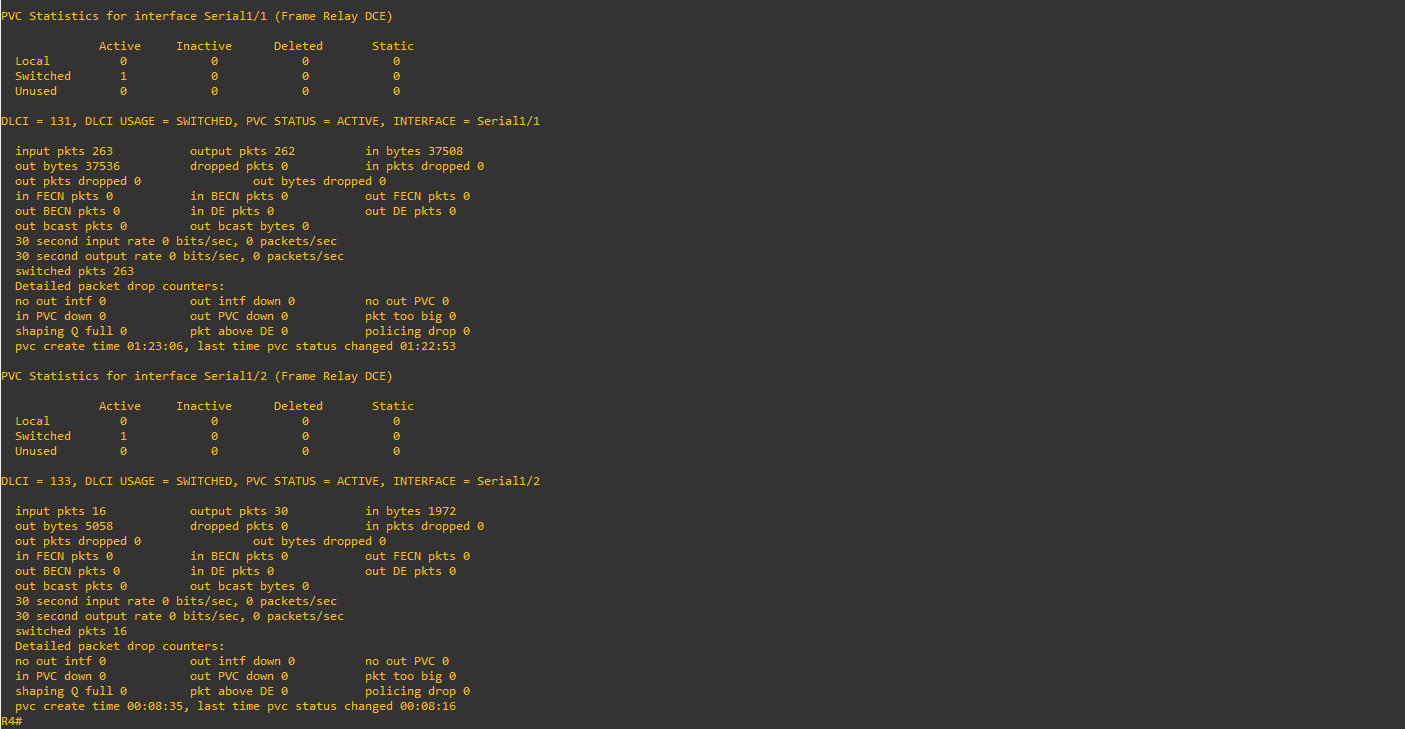


R3

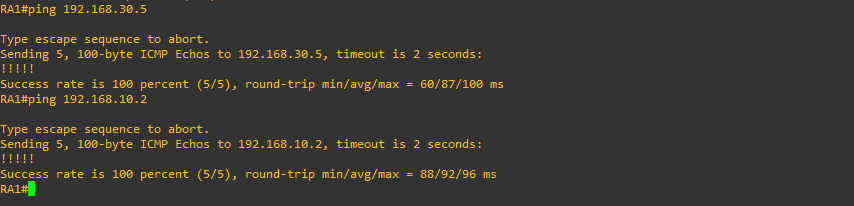


R4





Ping



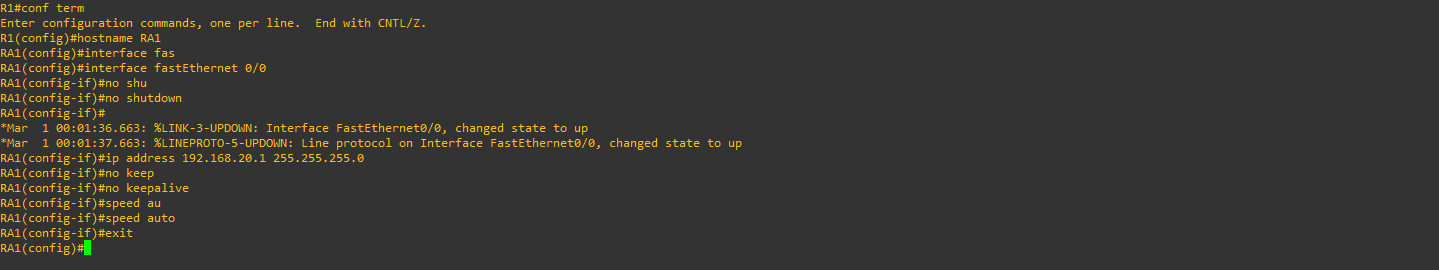
ping



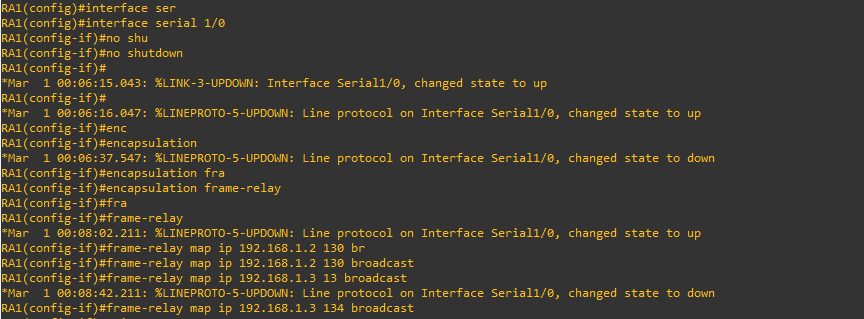
**Fin**

**LABO 6 : Sous interface multipoint avec mappage statique**

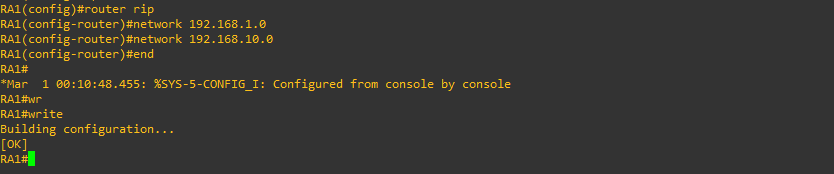
Activation de l’interface fastEthernet 0/0



On active maintenant l’interface serial 1/0

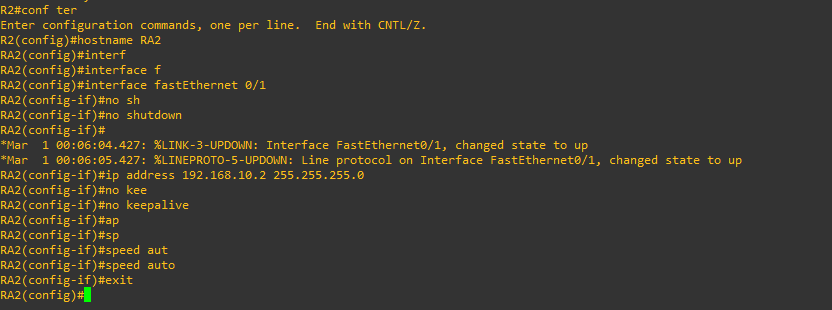


On attribue les adresses

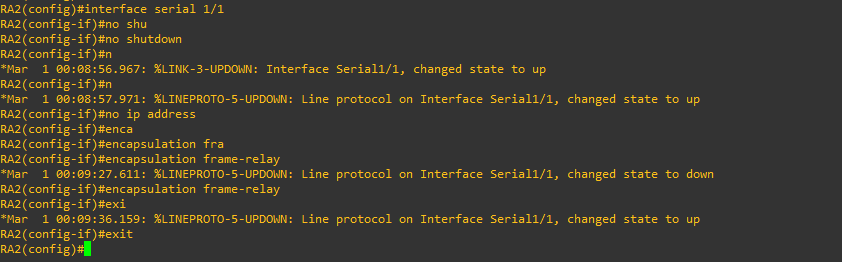


R2

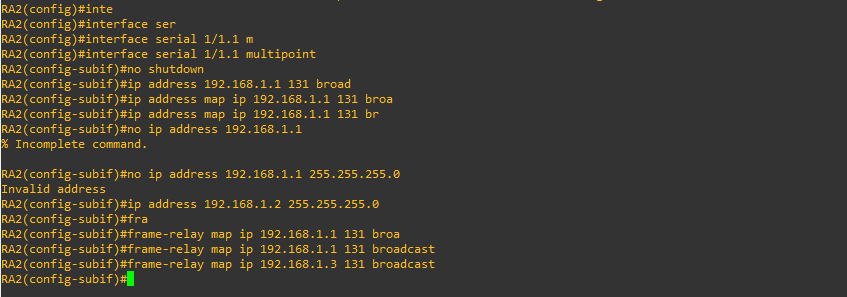
Activation de l’interface fastEthernet 0/1



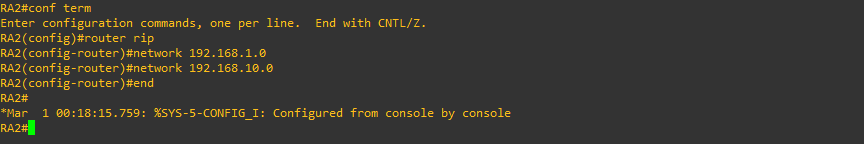
Activation de l’interface serial 1/1



On active le sous interface multipoint



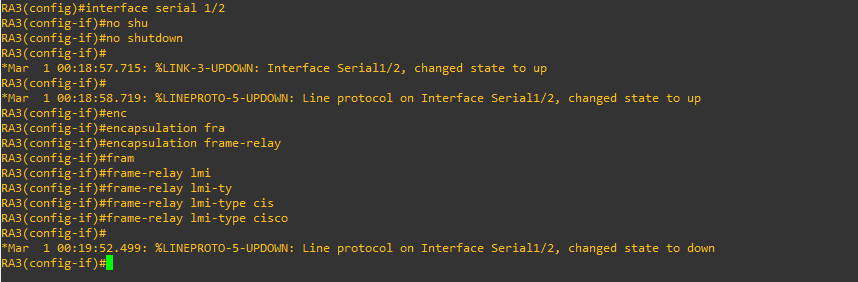
On attribue les addresses



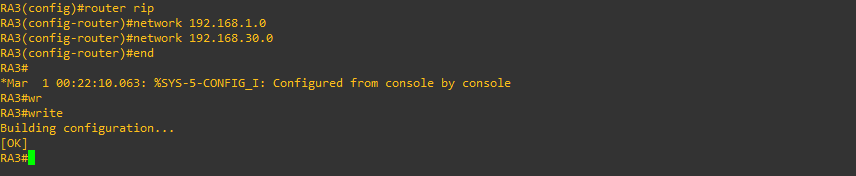
On renomme le routeur 3 et on fait comme dans les autres, au paravent on active le fastEthernet 0/0



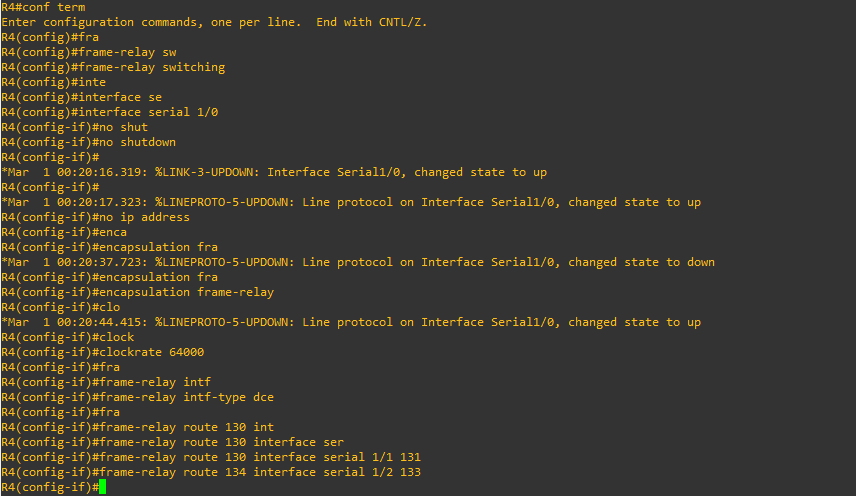
On active maintenant le serial 1/2

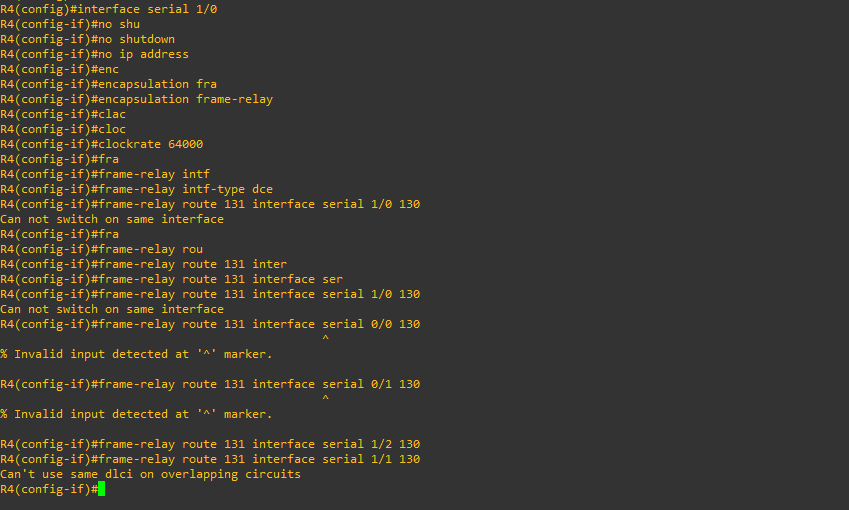


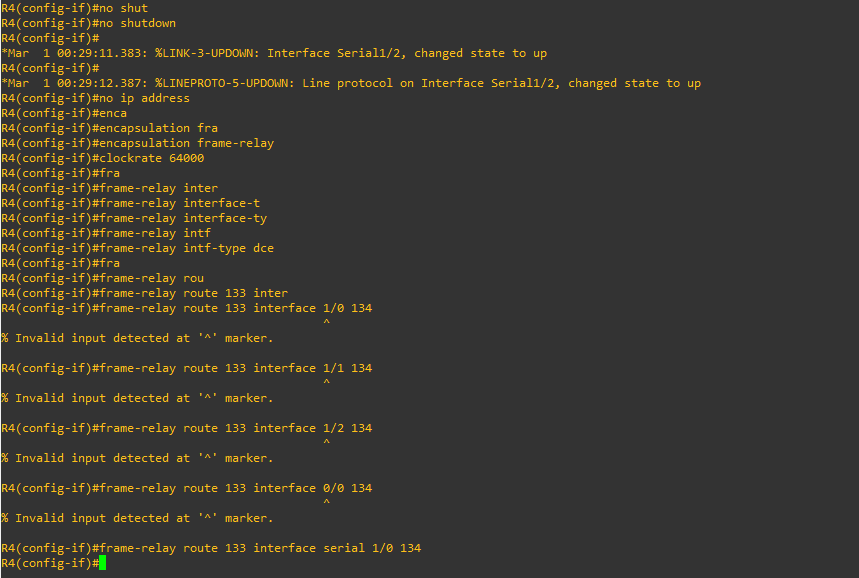
On donne l’adresse réseaux



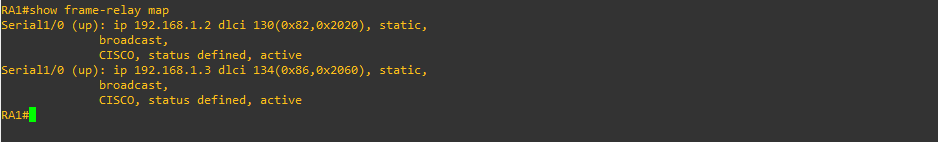
Configuration du Switch



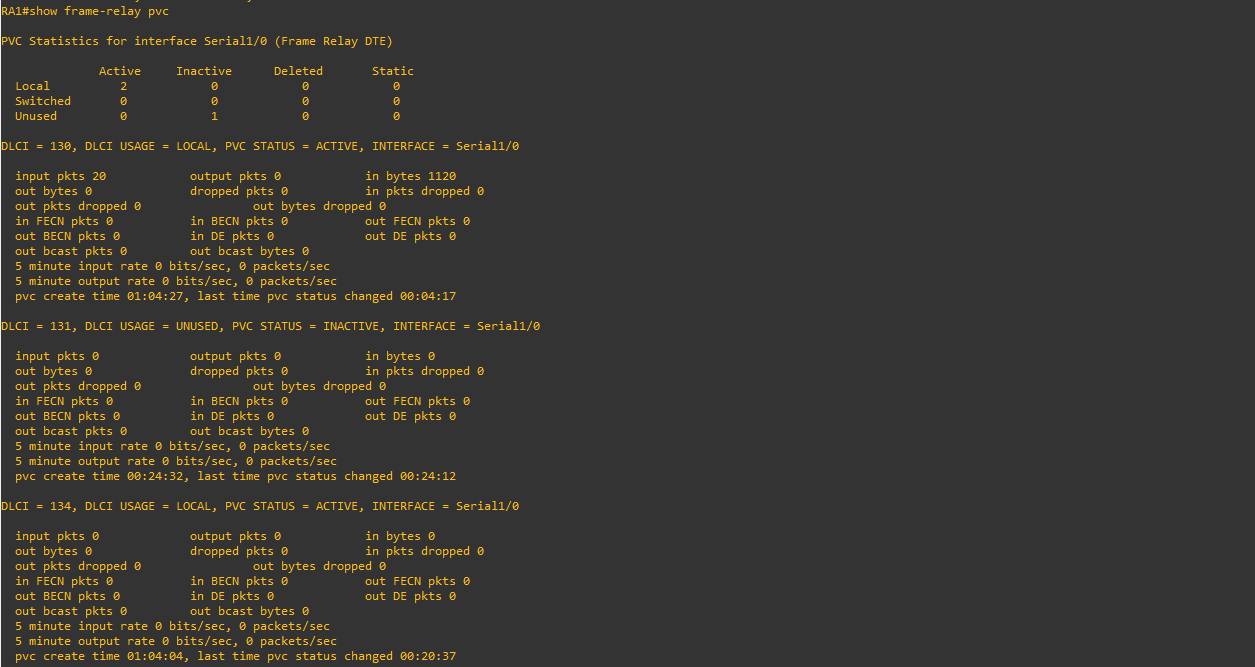




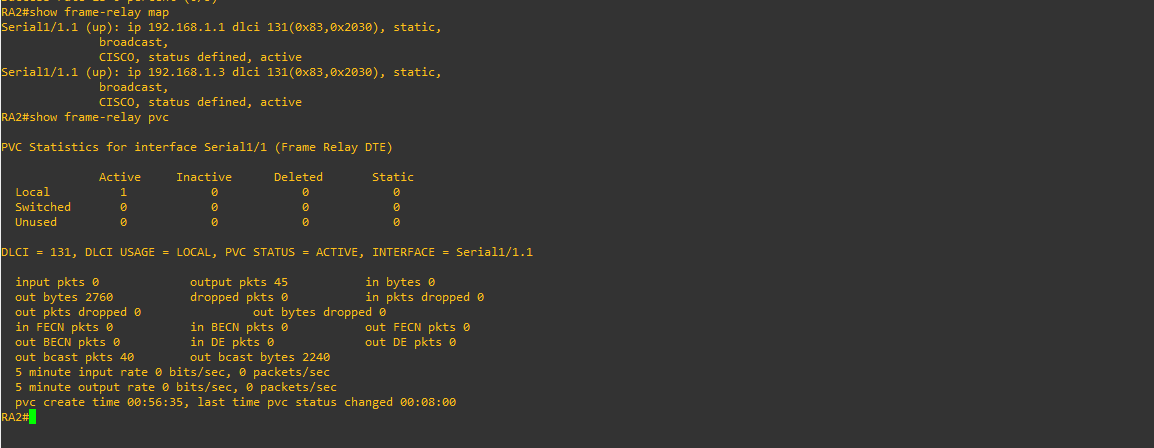
Diagnostic



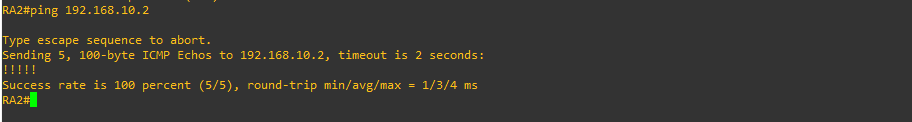
Pvc



R2



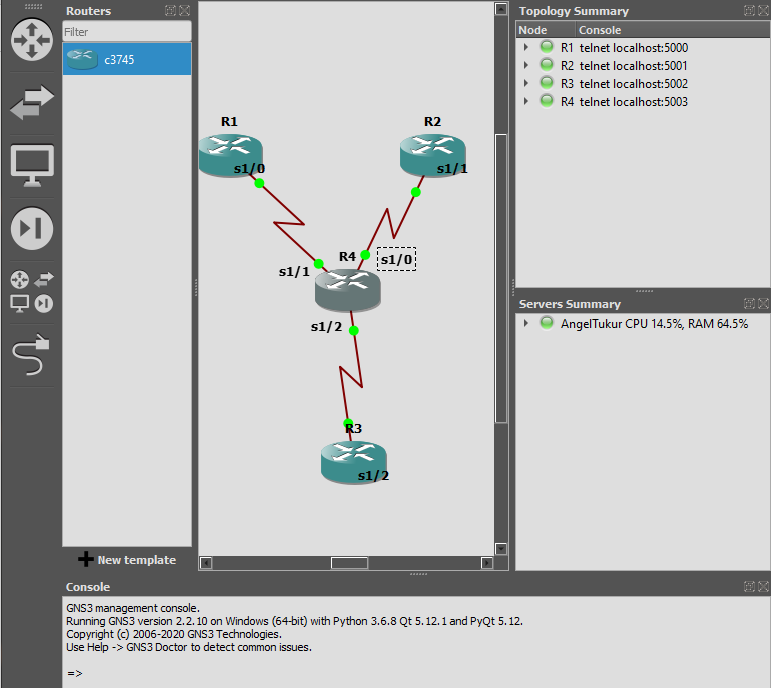
Ping



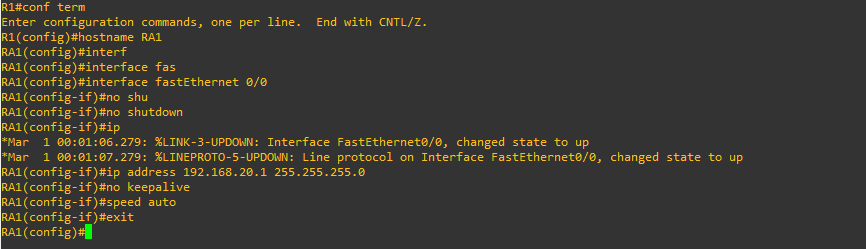
**Fin**

**Labo 7 : Sous interface multipoint avec mappage dynamique et maillage partiel**

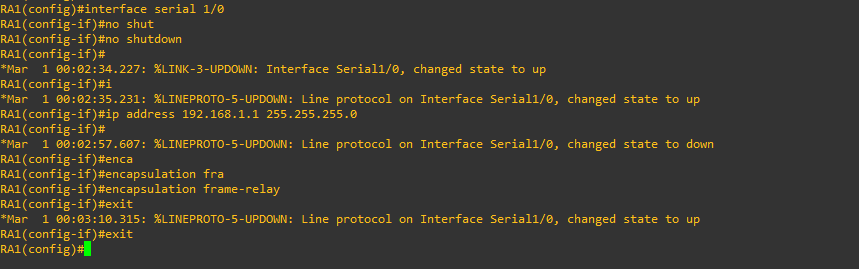
On construit d’abord l’architecture



On se met dans le router 1 pour configurer, on active l’interface fastEthernet 0/0 et on lui donne une adresse puis une maque



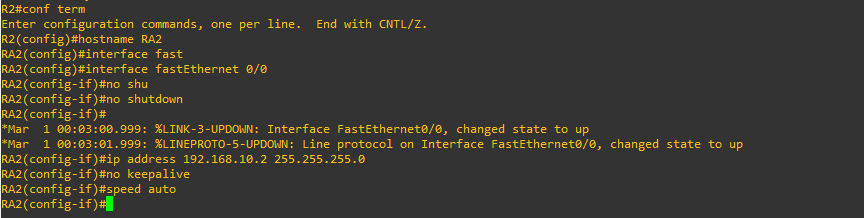
Maintenant on active l’interface serial 1/1 et on le configure



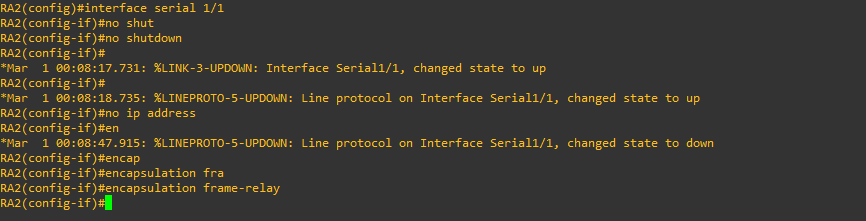
Et pour finaliser on ajoute les adresses réseaux



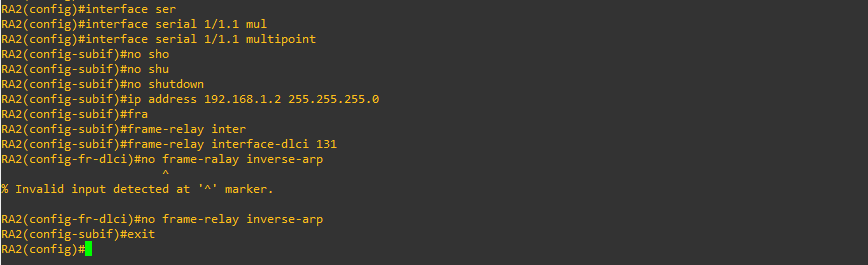
Dans le router 2 on fait la même démarche, en premier on active l’interface fastEthernet 0/0



Mais ici on active l’interface 1/1 et on la configure



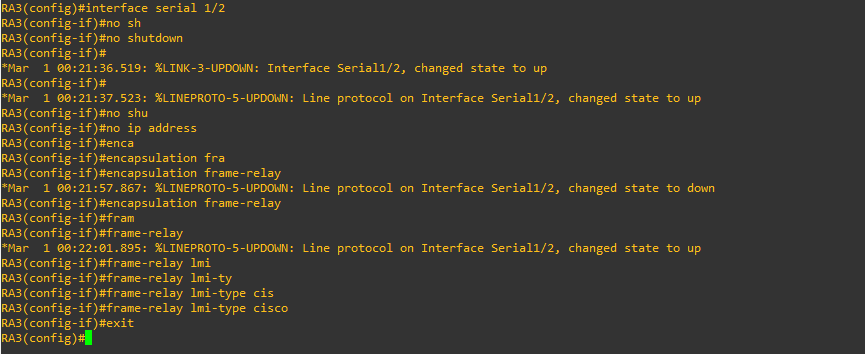
Maintenant on active les sous-interfaces multipoint



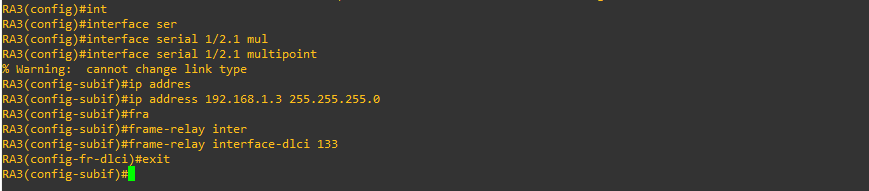
On donne les respective adresses réseaux



On se situe maintenant dans l’interface serial 1/2 et on l’active



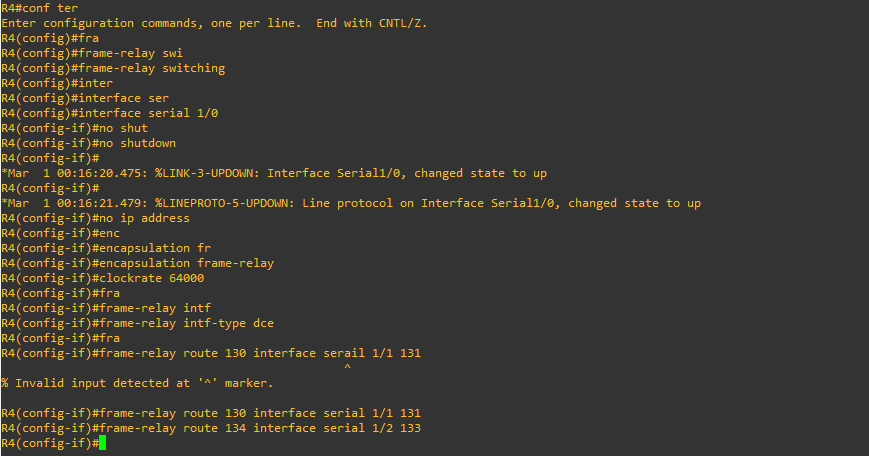
Comme dans le routeur 2, ici on active la sous-interface multipoint(multiport)



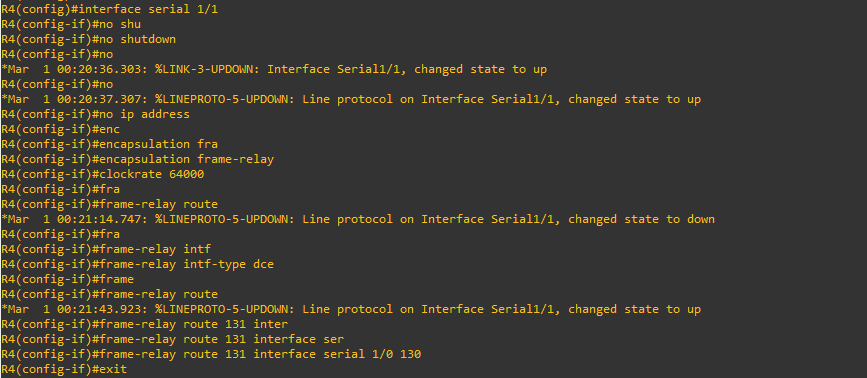
On attribute les addresses



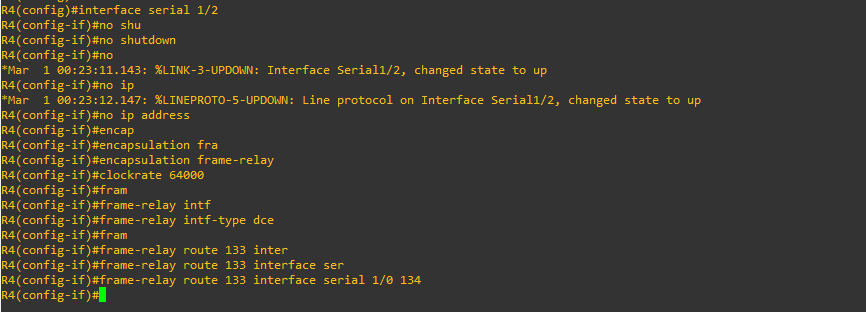
Au niveau du routeur 4, vu que c’est ce qu’on va utiliser comme Switch on fait une configuration particulière c’est a dire différente a celle des autres



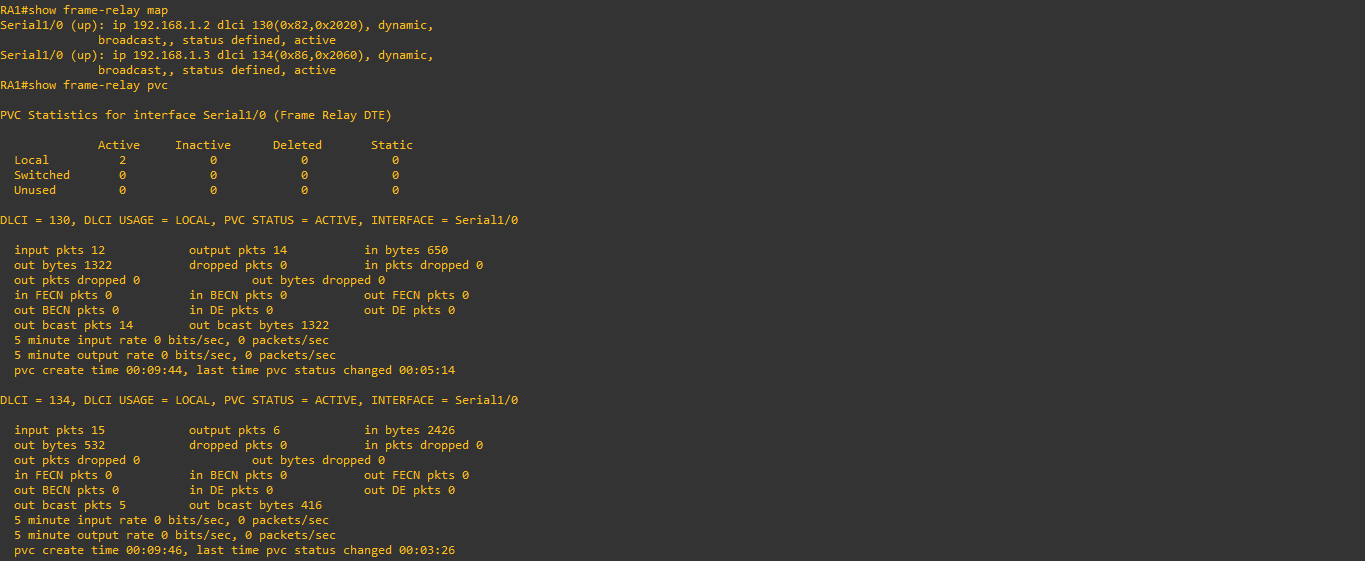
Activation de lInterface serial 1/1



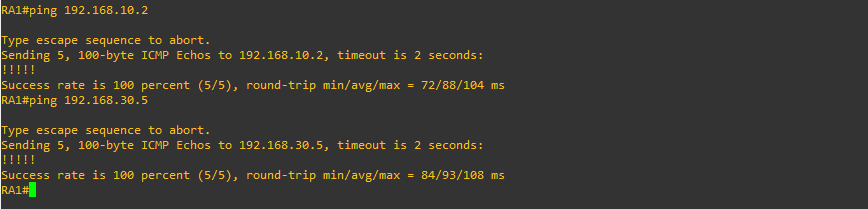
Activation de linterface serial 1/2



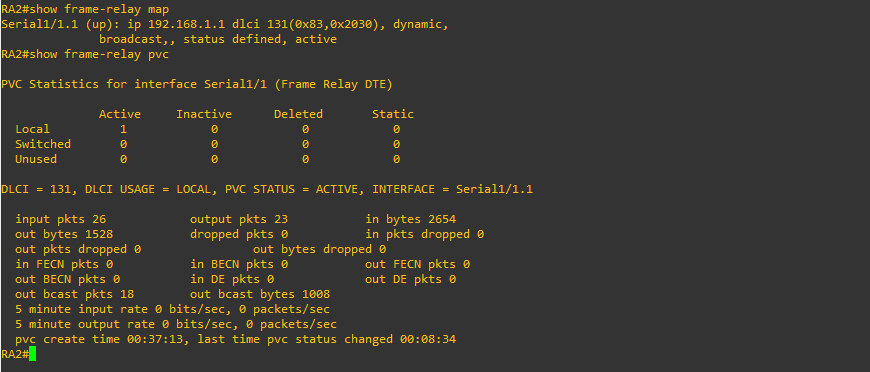
**Diagnostics et testes**



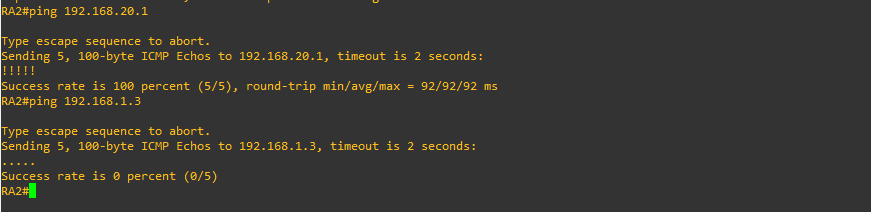
Ping



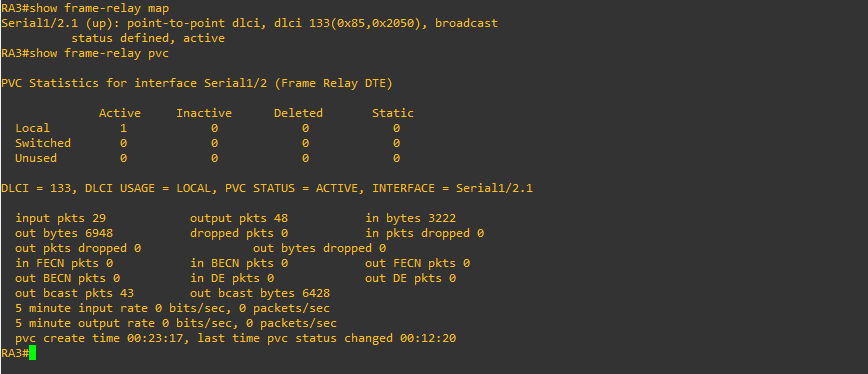
RA2#



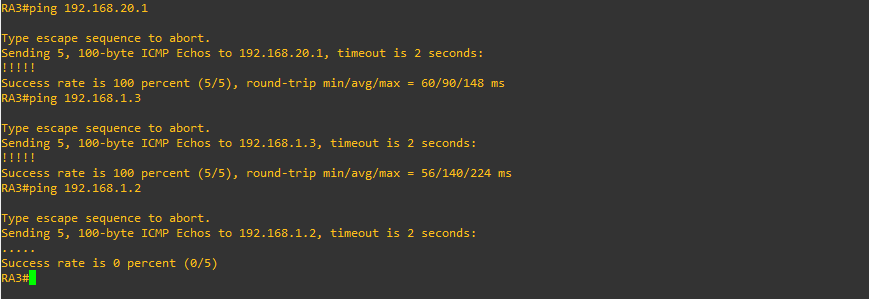
Ping



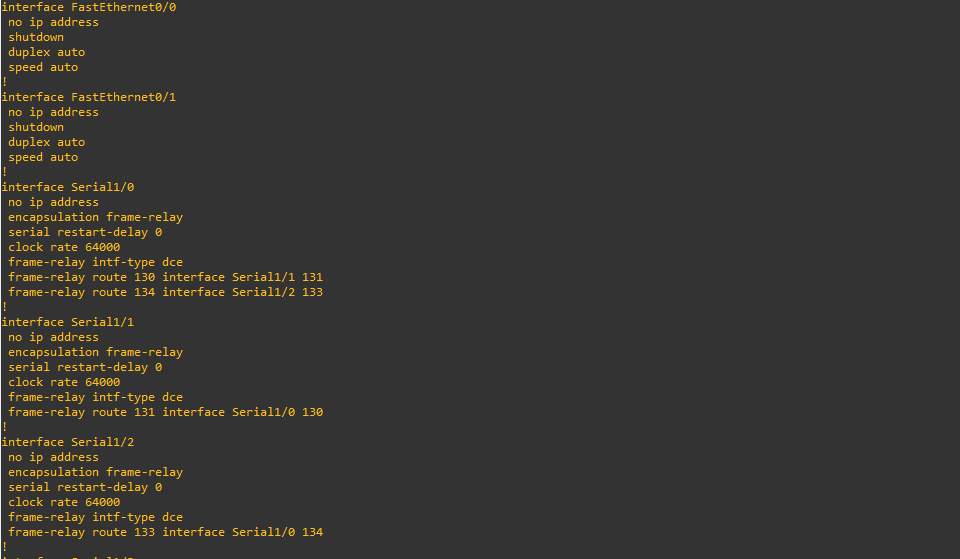
RA3#



Ping



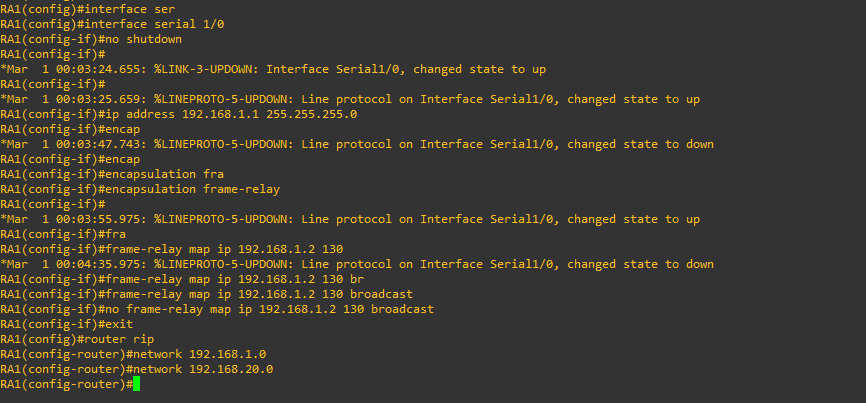
switch resume



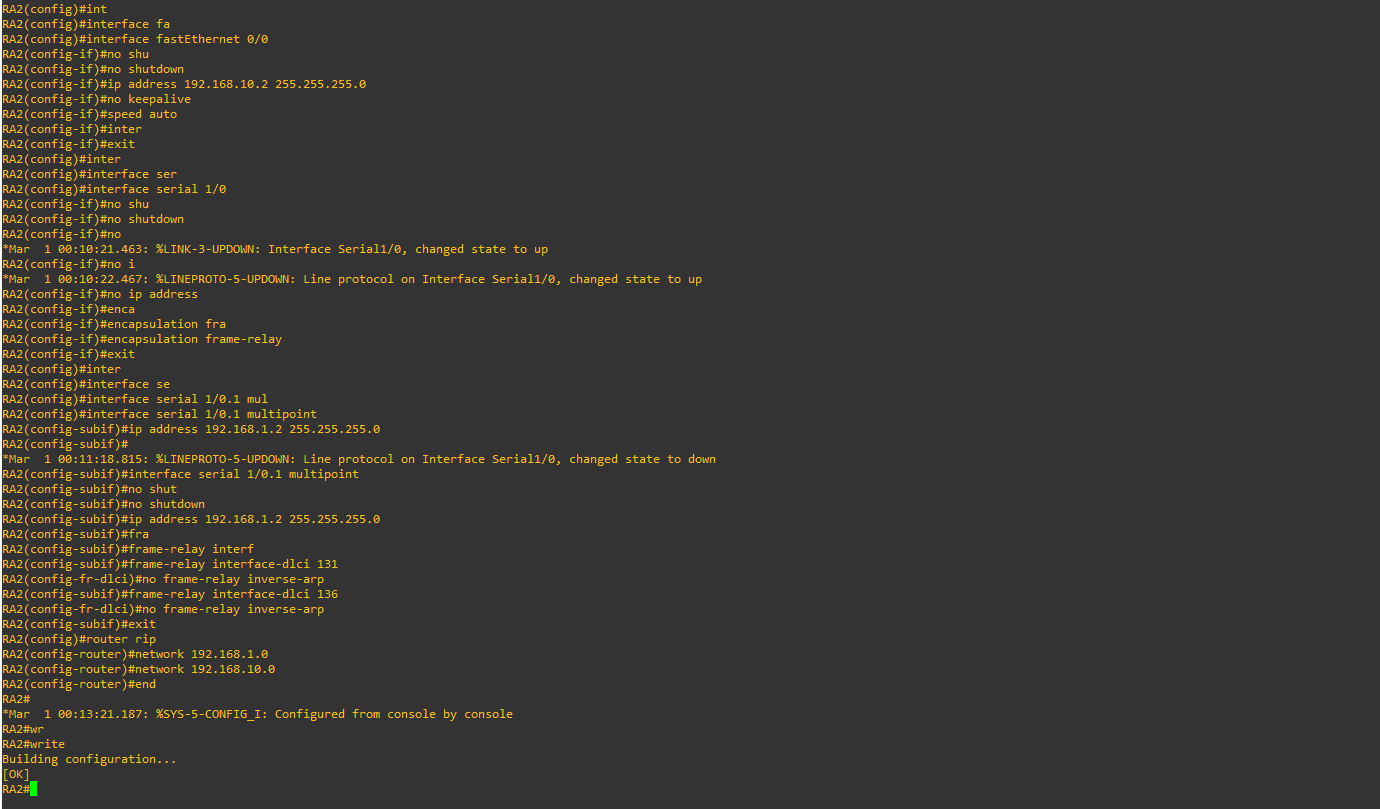
**FIN**

**LABO 8 : Sous interfaces multipoint avec mappage dynamique et maillage total**

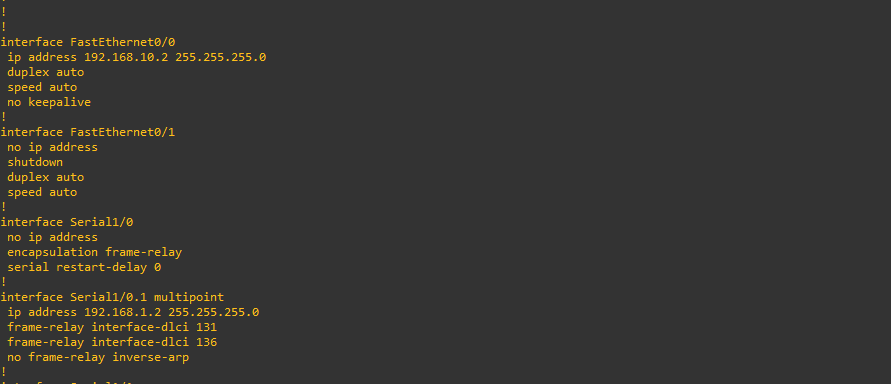
Configuration du Ra1



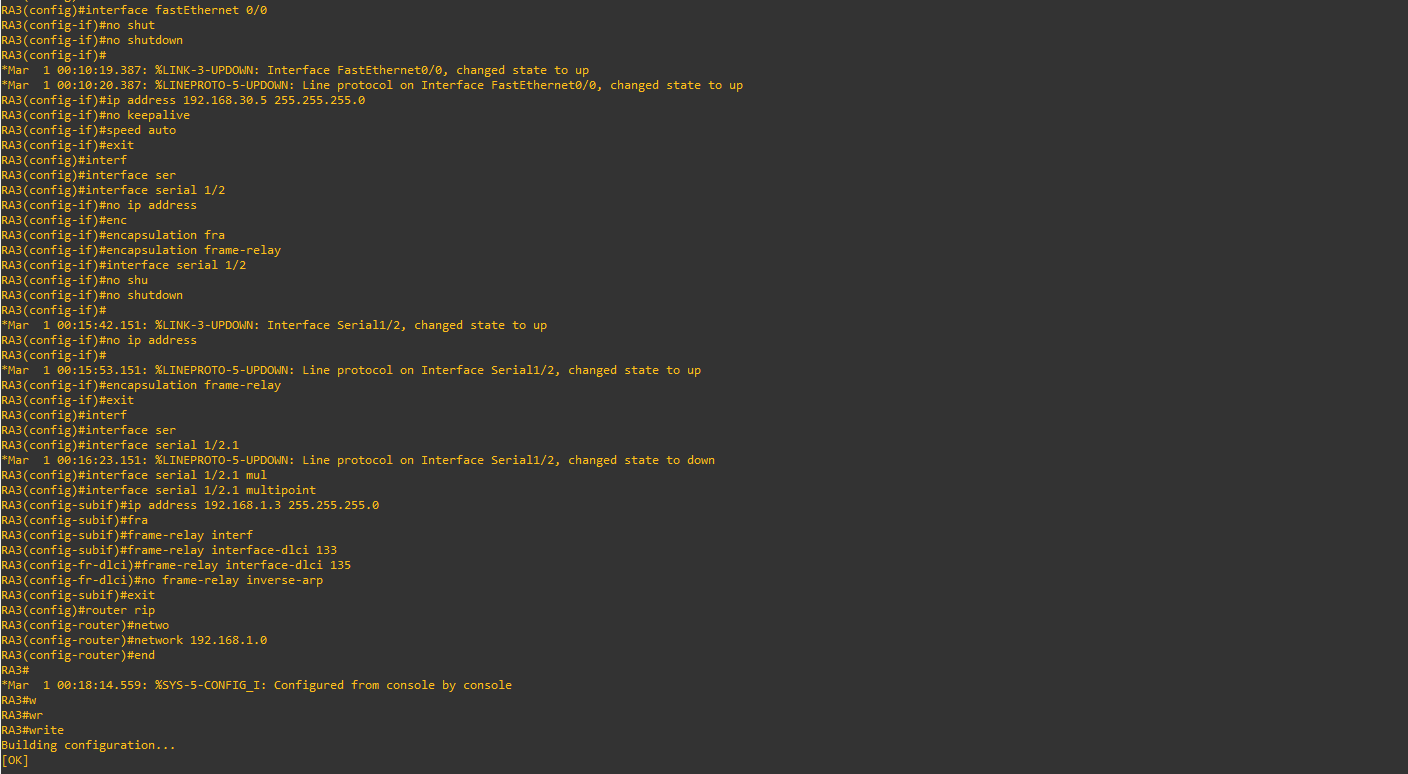
Ra2



Resume de toutes les comandes quon a tappe



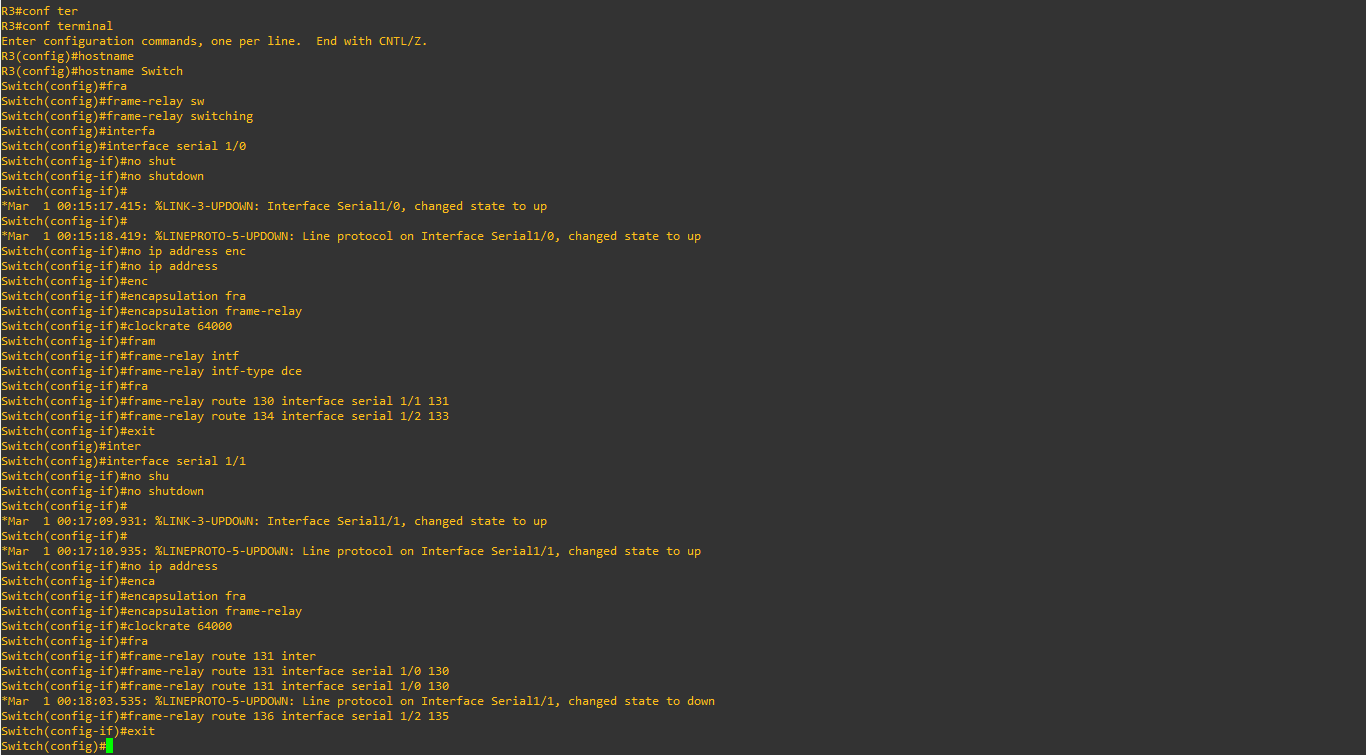
Configuration du **routeur 3**

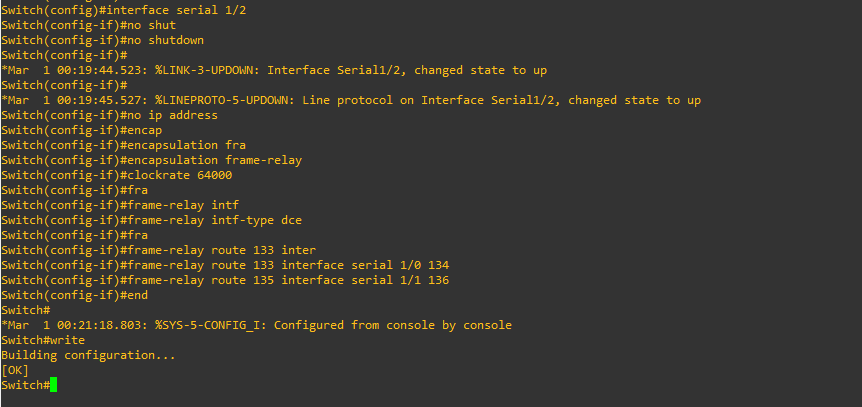


Resume des commandes quon a tappe

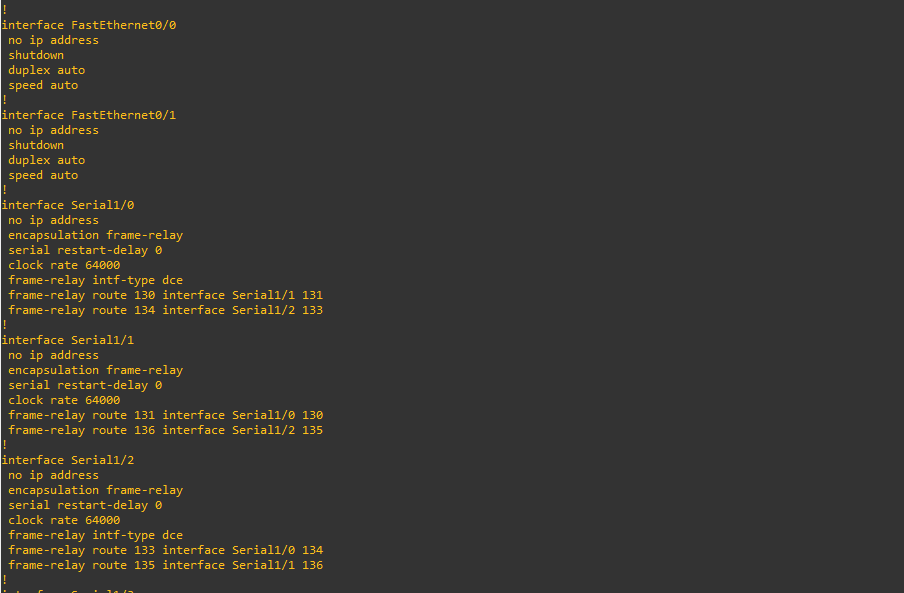


Configuration du routeur 3

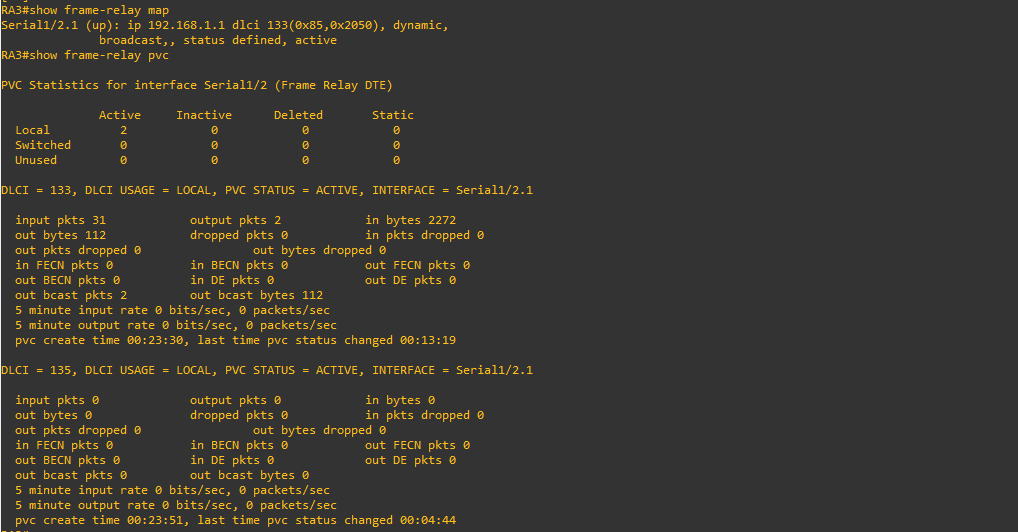


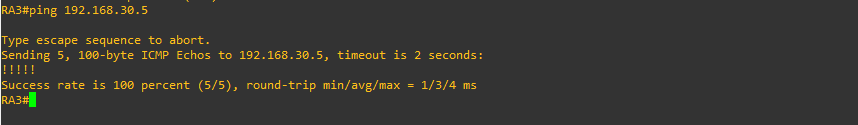


Resume des commandes quon a tappe



**Diagnostic**





**Test du switch**

