!

! ============

! R1 - Site A

! ============

hostname R1

!

enable secret cisco

no ip domain-lookup

!

! --- OSPF ---

router ospf 1

network 172.0.0.0 0.255.255.255 area 0

network 10.0.0.0 0.255.255.255 area 0

network 192.168.1.0 0.0.0.3 area 0

log-adjacency-changes

!

! --- Interfaces LAN ---

interface GigabitEthernet0/0

description Vers Switch Core (SW-L3 #1)

ip address 172.31.80.1 255.255.255.0

ip nat inside

no shutdown

!

interface GigabitEthernet0/1

description Vers Switch Backup (SW-L3 #2)

ip address 172.31.90.1 255.255.255.0

ip nat inside

no shutdown

!

! --- Interface WAN ---

interface GigabitEthernet0/2

description Connexion WAN / Internet

ip address 10.7.1.1 255.0.0.0

ip nat outside

crypto map GRE-MAP

no shutdown

!

! --- Tunnel GRE over IPsec ---

interface Tunnel0

description Tunnel GRE vers R2 (Site B)

ip address 192.168.1.1 255.255.255.252

tunnel source GigabitEthernet0/2

tunnel destination 10.7.2.1

no shutdown

!

! --- Routage par défaut / Route statique vers site B ---

ip route 0.0.0.0 0.0.0.0 10.0.0.1

ip route 172.32.0.0 255.255.0.0 192.168.1.2

!

! ===========================================

! 1) ACL pour exclure le trafic inter-sites du NAT

! ===========================================

access-list 101 deny ip 172.31.0.0 0.0.255.255 172.32.0.0 0.0.255.255

access-list 101 deny ip 172.32.0.0 0.0.255.255 172.31.0.0 0.0.255.255

access-list 101 permit ip 172.31.0.0 0.0.255.255 any

!

! ===========================================

! 2) NAT overload

! ===========================================

ip nat inside source list 101 interface GigabitEthernet0/2 overload

!

! ===========================================

! 3) IPSec pour protéger le GRE

! ===========================================

! -- ISAKMP policy --

crypto isakmp policy 10

encr aes

hash sha

authentication pre-share

group 2

!

crypto isakmp key secret\_key address 10.7.2.1

!

! -- Transform-set --

crypto ipsec transform-set GRE-IPSec esp-aes esp-sha-hmac

!

! -- ACL matchant le trafic GRE entre 10.7.1.1 et 10.7.2.1 --

access-list 110 permit gre host 10.7.1.1 host 10.7.2.1

!

! -- Crypto map --

crypto map GRE-MAP 10 ipsec-isakmp

set peer 10.7.2.1

set transform-set GRE-IPSec

match address 110

!

end