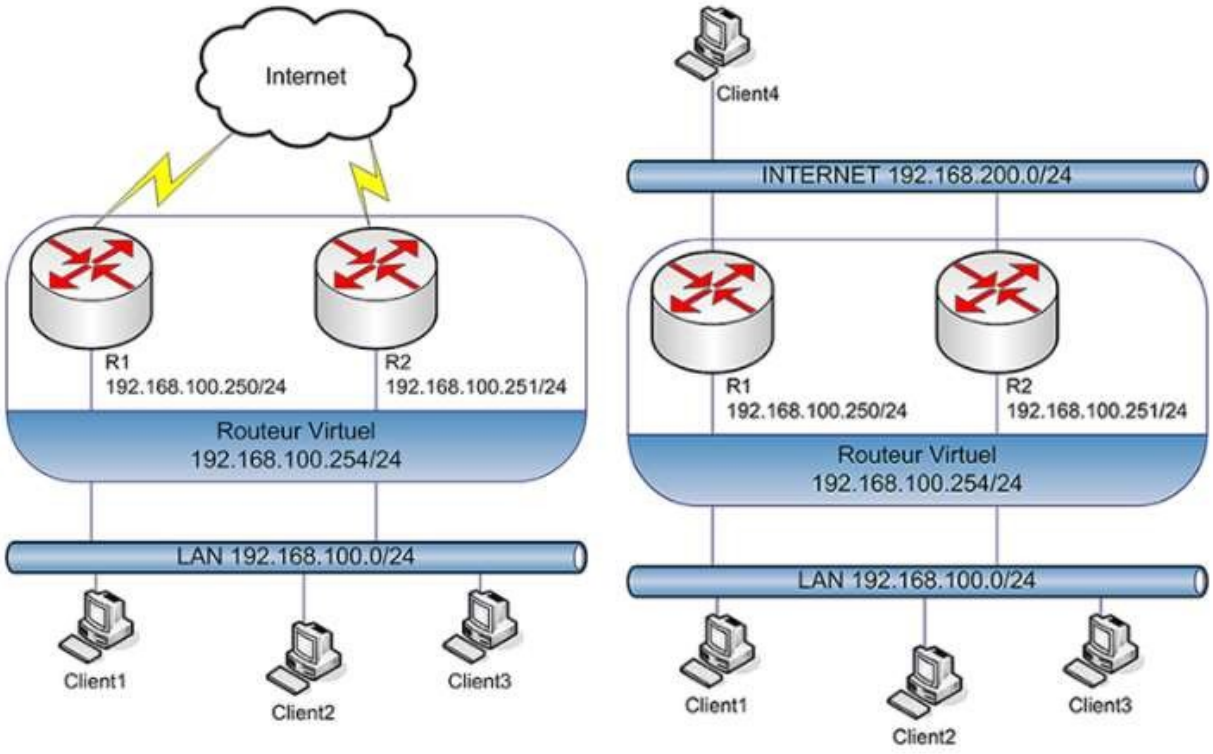
TP: HSRP

The HSRP protocol (Hot Standby Routing Protocol) allows redundancy of Cisco routers. HSRP
authorizes a backup router to replace the main router, in case the latter is no longer

present on the network (restart, failure, etc.).
Switching between routers is automatic and transparent to customers.

This solution is used in particular to provide redundant access to the Internet or to a site
distant.

Here are the diagrams of the workshop:



Set up the workshop. Internet access can be simulated by replacing links to the Internet with
serial links or by Ethernet links (see HSRP Diagram 2). Configure routers to

ensure:

✓ fault tolerance through an HSRP group on the Ethernet interfaces attached to the segment
192.168.100.0/24 from R1 and R2,
✓ the use of a virtual IP 192.168.100.254/24 for the HSRP group,

✓ the priority of R2 over R1,
✓ the communication between the clients client1, client2, client3 and client4.
You can use the following commands on routers to verify the operation of the

protocol: show standby, show standby neighbors.

Setups

Route>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int range f0/0-1
Router(config-if-range)#no sh
Router(config-if-range)#no shutdown

Router(config-if-range)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, 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

Router(config-if-range)#exit Router(config)#hostname
R2(hostname R1 on Router R1) R2(config)#int f0/1

R2(config-if)#ip ad
R2(config-if)#ip address 192.168.200.2 255.255.255.0---#(192.168.200.1 on R1)
R2(config-if)#exit
R2(config)#int f0/0
R2(config-if)#ip ad
R2(config-if)#ip address 192.168.100.251 255.255.255.0---#(192.168.100.250 on R1)
R2(config-if)#
R2(config-if)#standby 1 ip 192.168.100.254 R2(config-
if)#standby 1 priority 110---#(priority 100 on R1) R2(config-
if)#
R2(config-if)#standby 1 preempt

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R2(config-if)#
%HSRP-6-STATECHANGE: FastEthernet0/0 Grp 1 state Speak -> Standby

 %HSRP-6-STATECHANGE: FastEthernet0/0 Grp 1 state Standby -> Active
R2(config-if)#end
R2# show standby
FastEthernet0/0 - Group 1
  State is Active
    4 state changes, last state change 00:16:25
  Virtual IP address is 192.168.100.254 Active virtual
  MAC address is 0000.0C07.AC01
    Local virtual MAC address is 0000.0C07.AC01 (v1 default)
  Hello time 3 sec, hold time 10 sec
    Next hello sent in 0.63 secs
  Preemption enabled
  Active router is local
  Standby router is 192.168.100.250, priority 100 (expires in 8 sec)
  Priority 110 (configured 110)
  Group name is hsrp-Fa0/0-1 (default)
  R2#
```