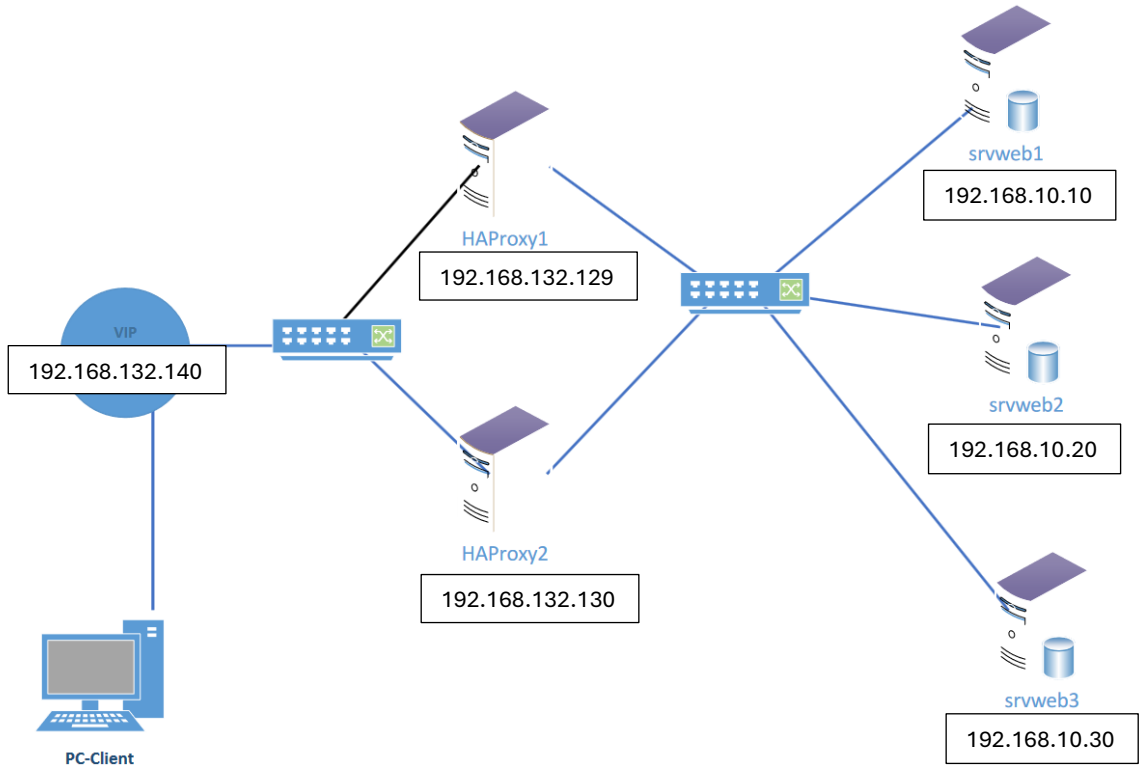
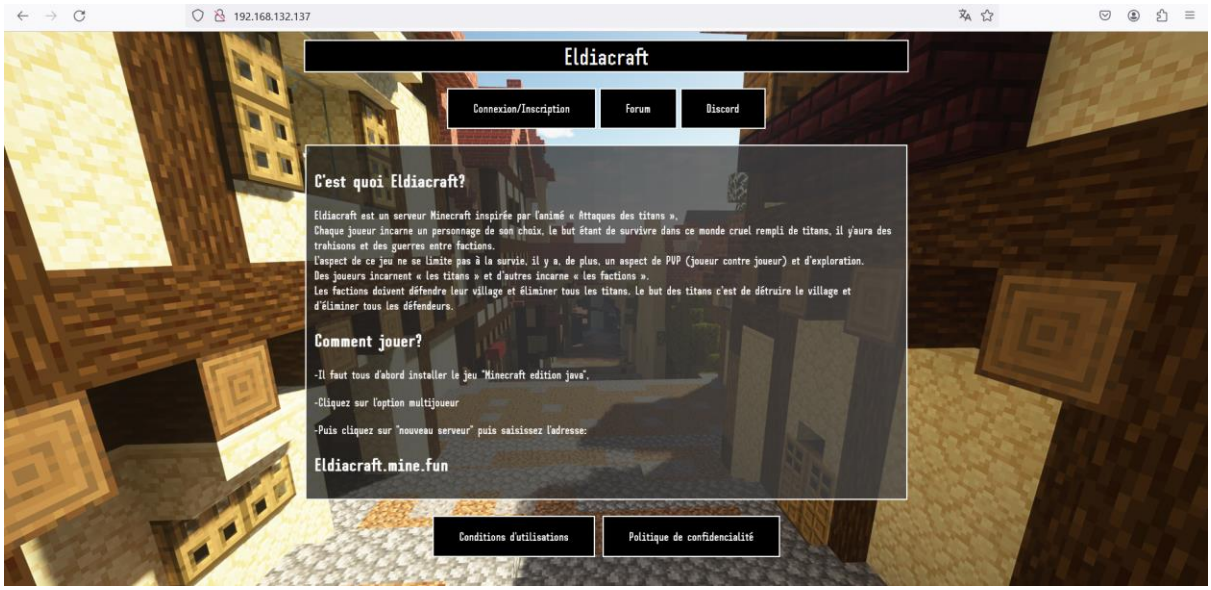
HAproxy et keepalived



Prérequis :

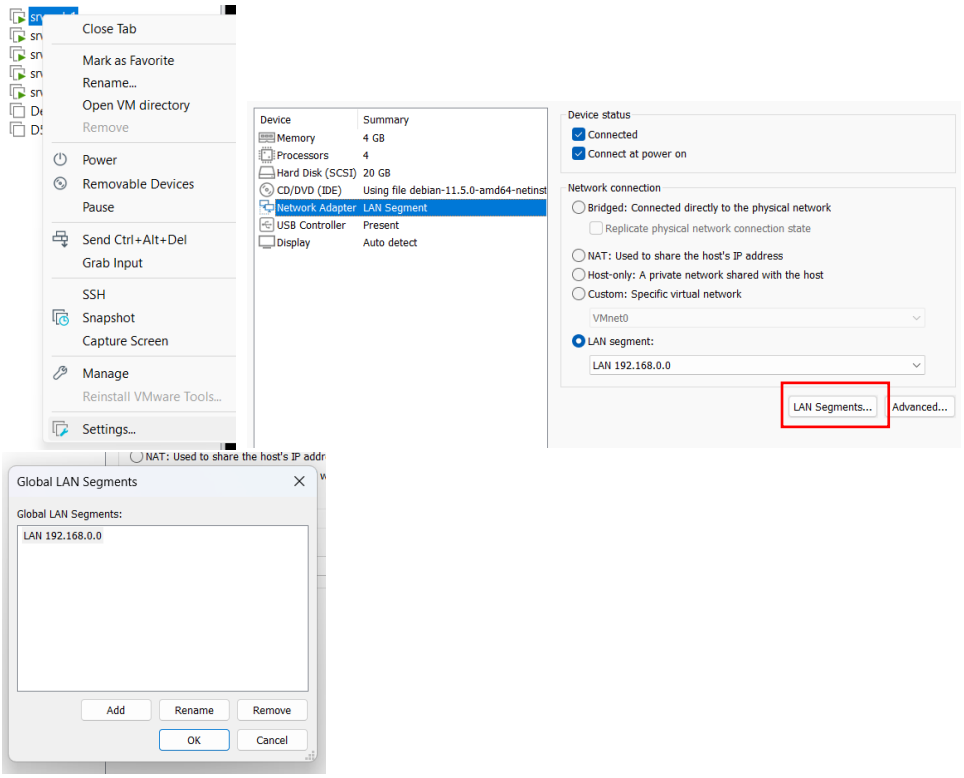
- Serveur web Debian 11 contenant le site web
- Serveur Debian 11



1) Configuration des serveurs

Srweb1 :

On veut un IP de 192.168.10.10/24




```
root@srvweb:~# nano /etc/network/interfaces_
```

```
  GNU nano 5.4                          /etc/network/interfaces                          S
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface

allow-hotplug ens33
iface ens33 inet static
        address 192.168.10.10/24
        gateway 192.168.10.254
```

```
service networking restart
```

➔ Si down

```
ifup ens33
```

```
root@srvweb:~# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 10
00
    link/ether 00:0c:29:de:dd:af brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 172.31.2.126/22 brd 172.31.3.255 scope global dynamic ens33
       valid_lft 2748sec preferred_lft 2748sec
    inet 192.168.10.10/24 brd 192.168.10.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fede:ddaf/64 scope link
       valid_lft forever preferred_lft forever
root@srvweb:~#
```

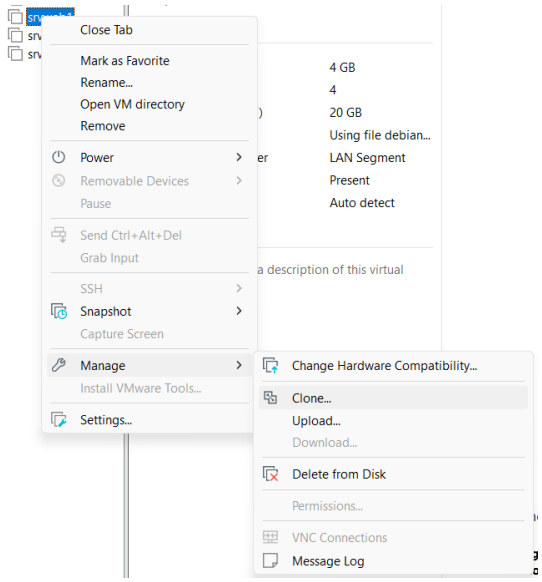
```
root@srvweb:~# nano /etc/hosts
```

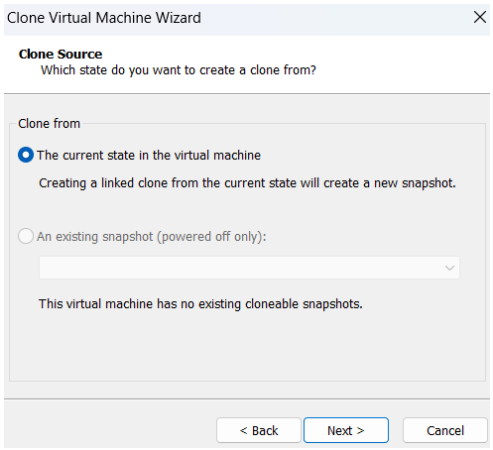
```
  GNU nano 5.4                                  /etc/hosts *
127.0.0.1       localhost
127.0.1.1       srvweb1
192.168.10.10   srvweb1

# The following lines are desirable for IPv6 capable hosts
::1     localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

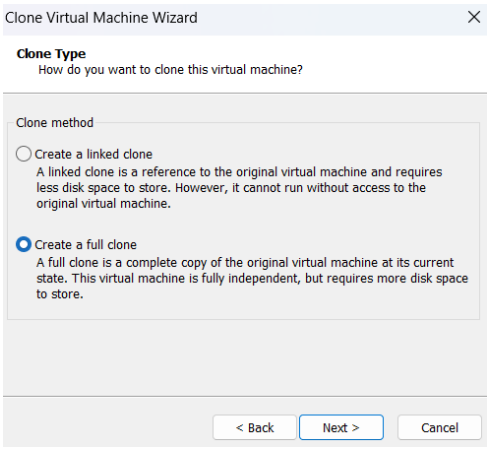
On ne peut plus accéder à l’adresse, il faut donc créer un serveur haproxy pour l’accéder.

➔ On clone également srweb1 pour créer srweb2 avec un ip de 192.168.10.20/24

Srvweb2 :








```
  GNU nano 5.4                                        /etc/hosts *
127.0.0.1       localhost
127.0.1.1       srvweb2
192.168.10.20   srvweb2_

# The following lines are desirable for IPv6 capable hosts
::1     localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

```
  GNU nano 5.4                              /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface

allow-hotplug ens33
iface ens33 inet static
        address 192.168.10.20/24
        gateway 192.168.10.254
```

```
root@srvweb:~# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 10
00
    link/ether 00:0c:29:d8:8f:24 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.10.20/24 brd 192.168.10.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fed8:8f24/64 scope link
       valid_lft forever preferred_lft forever
root@srvweb:~# _
```

Srvweb3 :

```
  [1/2]                                          /etc/hosts
127.0.0.1       localhost
127.0.1.1       srvweb3
192.168.10.30   srvweb3

# The following lines are desirable for IPv6 capable hosts
::1     localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

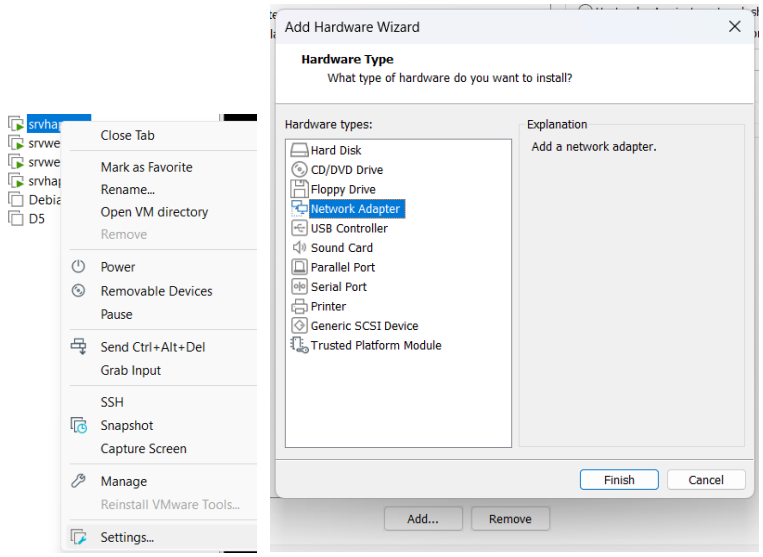
```
  GNU nano 5.4                                  /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface

allow-hotplug ens33
iface ens33 inet static
        address 192.168.10.30/24
        gateway 192.168.10.254
```

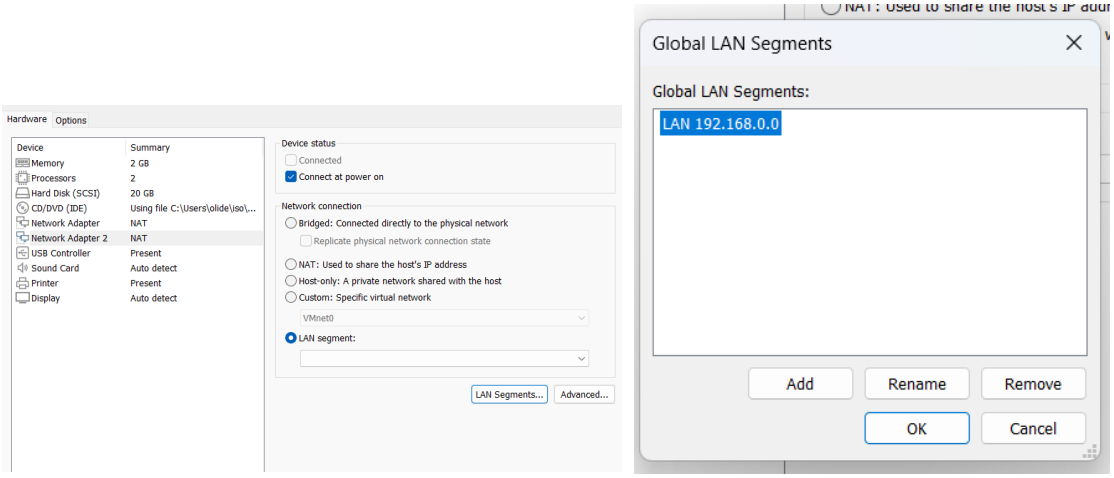
```
root@srvweb:~# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 10
00
    link/ether 00:0c:29:0d:7e:39 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.10.30/24 brd 192.168.10.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe0d:7e39/64 scope link
       valid_lft forever preferred_lft forever
```

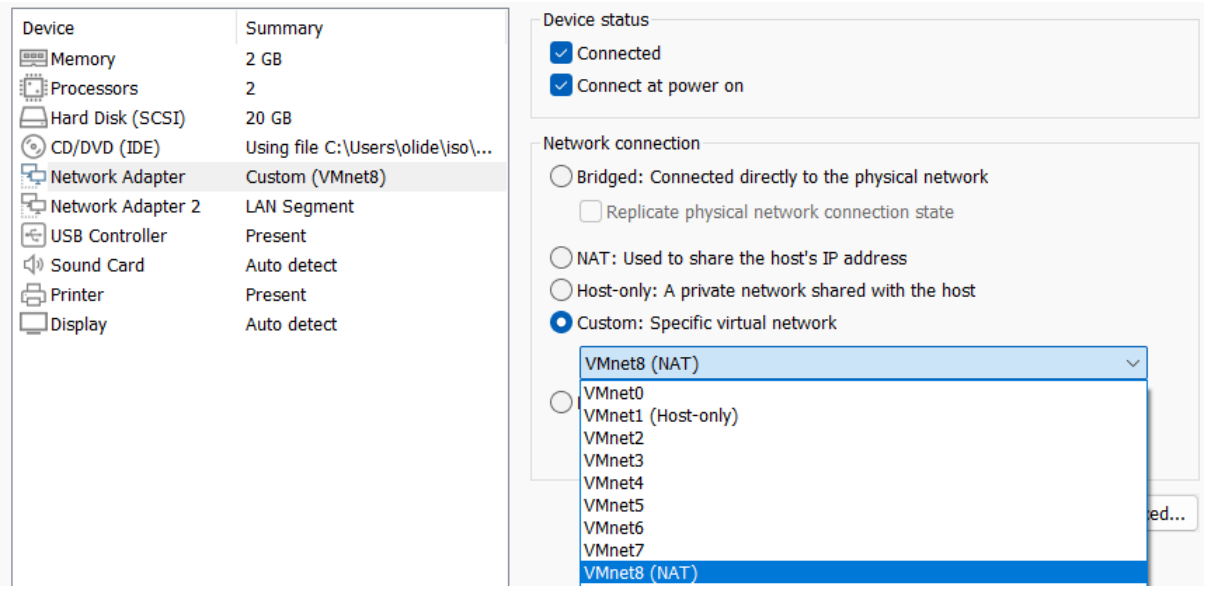
srvhaproxy

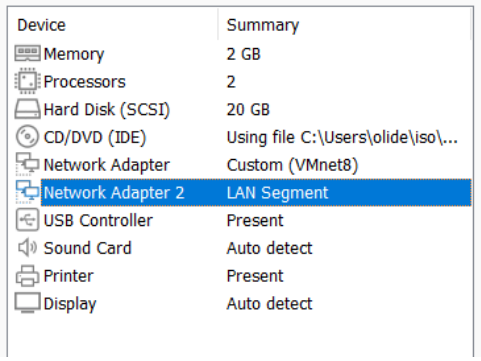
On installe haproxy :

```
root@srvhaproxy1:~# apt -y install haproxy
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances... Fait
Lecture des informations d'état... Fait
Les paquets supplémentaires suivants seront installés :
  libopentracing-c-wrapper0 libopentracing1
Paquets suggérés :
  vim-haproxy haproxy-doc
Les NOUVEAUX paquets suivants seront installés :
  haproxy libopentracing-c-wrapper0 libopentracing1
0 mis à jour, 3 nouvellement installés, 0 à enlever et 0 non mis à jour.
Il est nécessaire de prendre 2 125 ko dans les archives.
Après cette opération, 4 624 ko d'espace disque supplémentaires seront utilisés.
Réception de :1 http://deb.debian.org/debian bookworm/main amd64 libopentracing1 amd64 1.6.0-4 [53,4
 kB]
Réception de :2 http://deb.debian.org/debian bookworm/main amd64 libopentracing-c-wrapper0 amd64 1.1
.3-3+b1 [29,6 kB]
Réception de :3 http://deb.debian.org/debian bookworm/main amd64 haproxy amd64 2.6.12-1 [2 042 kB]
16% [3 haproxy 0 B/2 042 kB 0%]
```










```
root@srvhaproxy1:~# nano /etc/network/interfaces
```

```
  GNU nano 7.2                                 /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
allow-hotplug ens33
iface ens33 inet static
        #address 192.168.10.1/24
        #gateway 192.168.10.254
        address 192.168.132.129/24
        gateway 192.168.132.2



allow-hotplug ens36
iface ens36 inet static
        address 192.168.10.1/24
        gateway 192.168.10.254
```

```
root@srvhaproxy1:~# nano /etc/hosts
```

```
  GNU nano 7.2                                          /etc/hosts
127.0.0.1       localhost
127.0.1.1       srvhaproxy1

# The following lines are desirable for IPv6 capable hosts
::1     localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

192.168.10.10 srvweb1
192.168.10.20 srvweb2
192.168.10.30 srvweb3
```

```
root@srvhaproxy1:~# nano /etc/haproxy/haproxy.cfg _
```

```
  GNU nano 7.2                          /etc/haproxy/haproxy.cfg
        ca-base /etc/ssl/certs
        crt-base /etc/ssl/private

        # See: https://ssl-config.mozilla.org/#server=haproxy&server-version=2.0.3&config=intermedi>
        ssl-default-bind-ciphers ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-SHA256:ECDHE-EC>
        ssl-default-bind-ciphersuites TLS_AES_128_GCM_SHA256:TLS_AES_256_GCM_SHA384:TLS_CHACHA20_PO>
        ssl-default-bind-options ssl-min-ver TLSv1.2 no-tls-tickets

defaults
        log     global
        mode    http
        option  httplog
        option  dontlognull
        timeout connect 5000
        timeout client  50000
        timeout server  50000
        errorfile 400 /etc/haproxy/errors/400.http
        errorfile 403 /etc/haproxy/errors/403.http
        errorfile 408 /etc/haproxy/errors/408.http
        errorfile 500 /etc/haproxy/errors/500.http
        errorfile 502 /etc/haproxy/errors/502.http
        errorfile 503 /etc/haproxy/errors/503.http
        errorfile 504 /etc/haproxy/errors/504.http
frontend frontend-base
        bind *:80
        default_backend backend-base
        option forwardfor
backend backend-base
        balance roundrobin
        server srvweb1 192.168.10.10:80 check
        server srvweb2 192.168.10.20:80 check
        server srvweb3 192.168.10.30:80 check


^G Aide       ^O Écrire     ^W Chercher   ^K Couper     ^T Exécuter   ^C EmplacementM-U Annuler
^X Quitter    ^R Lire fich. ^\ Remplacer  ^U Coller     ^J Justifier  ^_ Aller ligneM-E Refaire
```

```
systemctl start haproxy
```

Pour détecter les problèmes :

```
root@srvhaproxy1:~# haproxy -f /etc/haproxy/haproxy.cfg
```

```
root@srvhaproxy1:~# systemctl status haproxy
● haproxy.service - HAProxy Load Balancer
     Loaded: loaded (/lib/systemd/system/haproxy.service; enabled; preset: enabled)
     Active: active (running) since Wed 2023-12-13 10:03:23 CET; 5min ago
       Docs: man:haproxy(1)
             file:/usr/share/doc/haproxy/configuration.txt.gz
   Main PID: 792 (haproxy)
      Tasks: 3 (limit: 2265)
     Memory: 46.2M
        CPU: 830ms
     CGroup: /system.slice/haproxy.service
             ├─792 /usr/sbin/haproxy -Ws -f /etc/haproxy/haproxy.cfg -p /run/haproxy.pid -S /run/ha>
             └─794 /usr/sbin/haproxy -Ws -f /etc/haproxy/haproxy.cfg -p /run/haproxy.pid -S /run/ha>

déc. 13 10:03:23 srvhaproxy1 systemd[1]: Starting haproxy.service - HAProxy Load Balancer...
déc. 13 10:03:23 srvhaproxy1 haproxy[792]: [NOTICE]   (792) : New worker (794) forked
déc. 13 10:03:23 srvhaproxy1 haproxy[792]: [NOTICE]   (792) : Loading success.
déc. 13 10:03:23 srvhaproxy1 systemd[1]: Started haproxy.service - HAProxy Load Balancer.
déc. 13 10:03:37 srvhaproxy1 haproxy[794]: 192.168.132.1:54246 [13/Dec/2023:10:03:37.873] frontend->
déc. 13 10:03:37 srvhaproxy1 haproxy[794]: 192.168.132.1:54246 [13/Dec/2023:10:03:37.959] frontend->
déc. 13 10:03:37 srvhaproxy1 haproxy[794]: 192.168.132.1:54246 [13/Dec/2023:10:03:37.970] frontend->
lines 1-20/20 (END)
```

Installation de keepalived :

`apt install keepalived`

```
root@srvhaproxy1:~# nano /etc/sysctl.conf
```

```
  GNU nano 7.2                                /etc/sysctl.conf
# settings are disabled so review and enable them as needed.
#
# Do not accept ICMP redirects (prevent MITM attacks)
#net.ipv4.conf.all.accept_redirects = 0
#net.ipv6.conf.all.accept_redirects = 0
# _or_
# Accept ICMP redirects only for gateways listed in our default
# gateway list (enabled by default)
# net.ipv4.conf.all.secure_redirects = 1
#
# Do not send ICMP redirects (we are not a router)
#net.ipv4.conf.all.send_redirects = 0
#
# Do not accept IP source route packets (we are not a router)
#net.ipv4.conf.all.accept_source_route = 0
#net.ipv6.conf.all.accept_source_route = 0
#
# Log Martian Packets
#net.ipv4.conf.all.log_martians = 1
#

###################################################################
# Magic system request Key
# 0=disable, 1=enable all, >1 bitmask of sysrq functions
# See https://www.kernel.org/doc/html/latest/admin-guide/sysrq.html
# for what other values do
#kernel.sysrq=438

net.ipv4.ip_nonlocal_bind = 1
net.ipv4.conf.all.arp_announce = 2
net.ipv4.conf.all.arp_ignore = 1
net.ipv4.ip_forward = 1
_
^G Aide       ^O Écrire     ^W Chercher   ^K Couper     ^T Exécuter   ^C EmplacementM-U Annuler
^X Quitter    ^R Lire fich. ^\ Remplacer  ^U Coller     ^J Justifier  ^- Aller ligneM-E Refaire
```

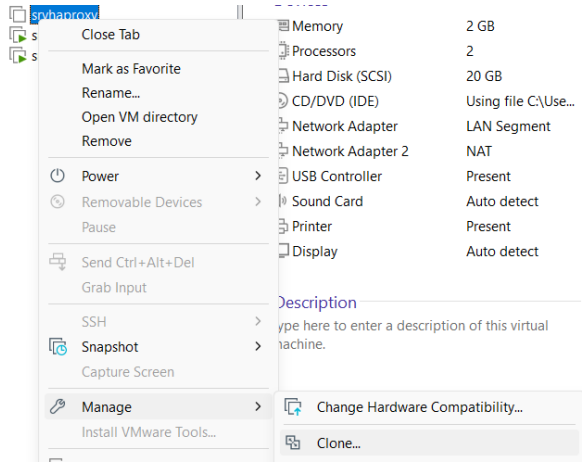
```
root@srvhaproxy1:~# sysctl -p /etc/sysctl.conf
net.ipv4.ip_nonlocal_bind = 1
net.ipv4.conf.all.arp_announce = 2
net.ipv4.conf.all.arp_ignore = 1
net.ipv4.ip_forward = 1
root@srvhaproxy1:~#
```

Configuration keepalived:

```
root@srvhaproxy1:~# nano /etc/keepalived/keepalived.conf
```

```
  GNU nano 7.2                          /etc/keepalived/keepalived.conf
vrrp_script reload_haproxy {
        script "killall -0 haproxy"
        interval 1
}
vrrp_instance VI_1{
        virtual_router_id 100
        state MASTER
        priority 100
        #Intervalle de contrôle
        advert_int 1
        #Interface de synchronisation entre les 2 haproxy
        lvs_sync_daemon_interface ens33
        interface ens33
        #authentification entre les 2 haproxy
        authentication {
                auth_type PASS
                auth_pass secret
        }
#adresse virtuelle
virtual_ipaddress{
        192.168.132.140/32 brd 192.168.132.255 scope global
        }
track_script{
        reload_haproxy
        }
}
```

Srvhaproxy2




```
  GNU nano 7.2                                /etc/network/interfaces
# This file describes the network interfaces available on your system
# and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
allow-hotplug ens33
iface ens33 inet static
        #address 192.168.10.2/24
        #gateway 192.168.10.254
        address 192.168.132.130/24
        gateway 192.168.132.2

allow-hotplug ens36
iface ens36 inet static
        address 192.168.10.2/24
        gateway 192.168.10.254
```

```
  GNU nano 7.2                                        /etc/hosts
127.0.0.1       localhost
127.0.1.1       srvhaproxy2

# The following lines are desirable for IPv6 capable hosts
::1     localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

192.168.10.10 srvweb1
192.168.10.20 srvweb2
192.168.10.30 srvweb3
```

```
 GNU nano 7.2                              /etc/haproxy/haproxy.cfg
        ca-base /etc/ssl/certs
        crt-base /etc/ssl/private

        # See: https://ssl-config.mozilla.org/#server=haproxy&server-version=2.0.3&config=intermedi>
        ssl-default-bind-ciphers ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-SHA256:ECDHE-EC>
        ssl-default-bind-ciphersuites TLS_AES_128_GCM_SHA256:TLS_AES_256_GCM_SHA384:TLS_CHACHA20_PO>
        ssl-default-bind-options ssl-min-ver TLSv1.2 no-tls-tickets

defaults
        log     global
        mode    http
        option  httplog
        option  dontlognull
        timeout connect 5000
        timeout client  50000
        timeout server  50000
        errorfile 400 /etc/haproxy/errors/400.http
        errorfile 403 /etc/haproxy/errors/403.http
        errorfile 408 /etc/haproxy/errors/408.http
        errorfile 500 /etc/haproxy/errors/500.http
        errorfile 502 /etc/haproxy/errors/502.http
        errorfile 503 /etc/haproxy/errors/503.http
        errorfile 504 /etc/haproxy/errors/504.http
frontend frontend-base
        bind *:80
        default_backend backend-base
        option forwardfor
backend backend-base
        balance roundrobin
        server srvweb1 192.168.10.10:80 check
        server srvweb2 192.168.10.20:80 check
        server srvweb3 192.168.10.30:80 check
_

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^X Quitter    ^R Lire fich. ^\ Remplacer  ^U Coller     ^J Justifier  ^- Aller ligneM-E Refaire
```
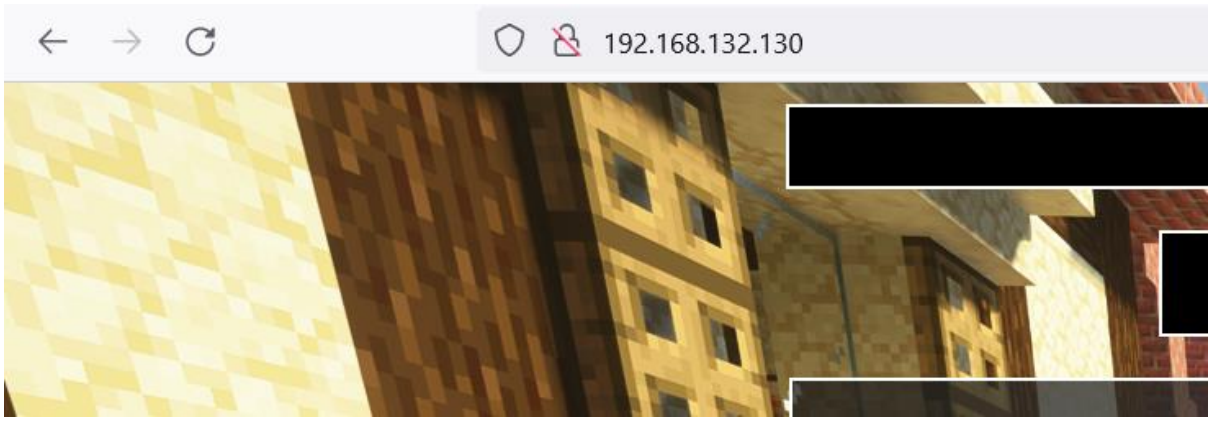
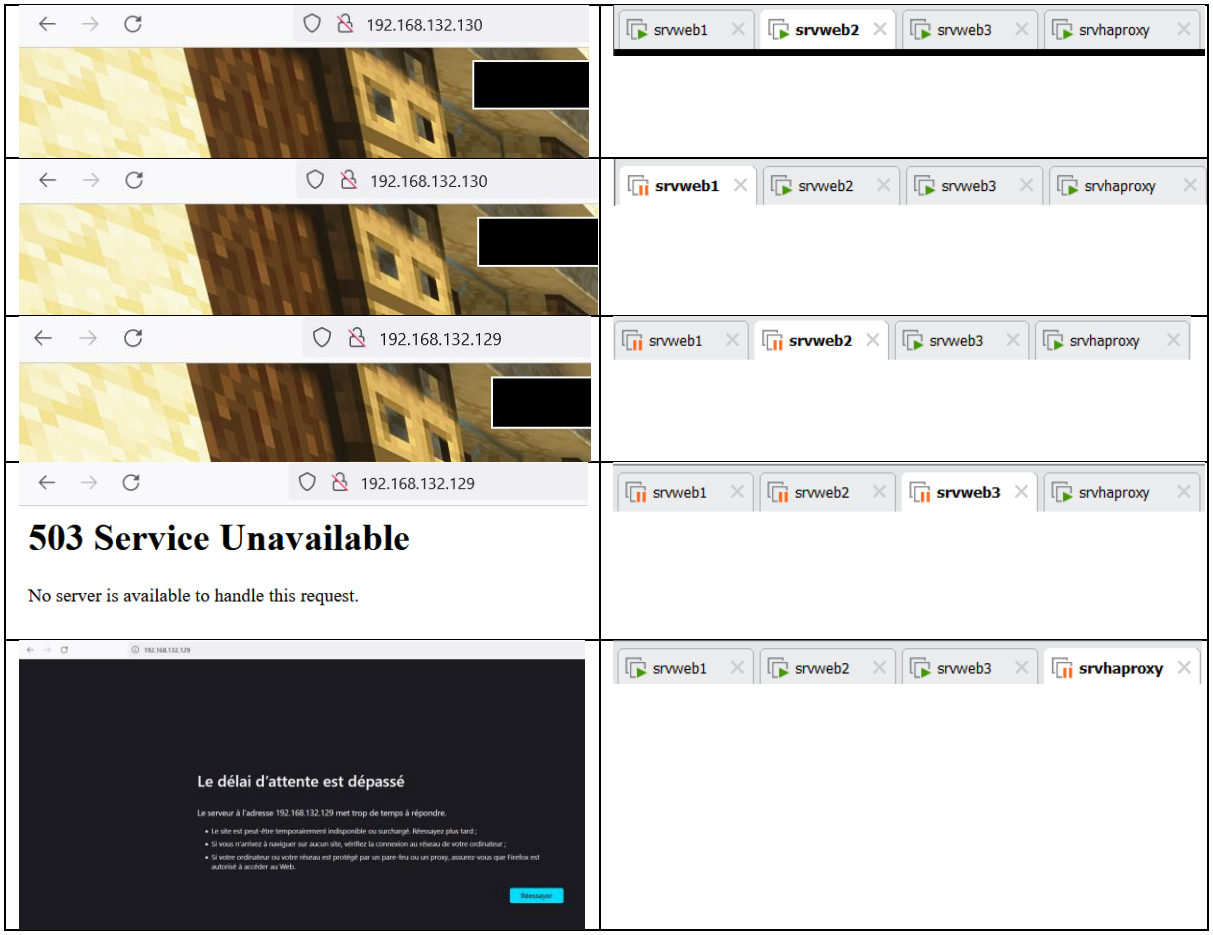

*

```
 GNU nano 7.2                                  /etc/sysctl.conf
# settings are disabled so review and enable them as needed.
#
# Do not accept ICMP redirects (prevent MITM attacks)
#net.ipv4.conf.all.accept_redirects = 0
#net.ipv6.conf.all.accept_redirects = 0
# _or_
# Accept ICMP redirects only for gateways listed in our default
# gateway list (enabled by default)
# net.ipv4.conf.all.secure_redirects = 1
#
# Do not send ICMP redirects (we are not a router)
#net.ipv4.conf.all.send_redirects = 0
#
# Do not accept IP source route packets (we are not a router)
#net.ipv4.conf.all.accept_source_route = 0
#net.ipv6.conf.all.accept_source_route = 0
#
# Log Martian Packets
#net.ipv4.conf.all.log_martians = 1
#

###################################################################
# Magic system request Key
# 0=disable, 1=enable all, >1 bitmask of sysrq functions
# See https://www.kernel.org/doc/html/latest/admin-guide/sysrq.html
# for what other values do
#kernel.sysrq=438

net.ipv4.ip_nonlocal_bind = 1
net.ipv4.conf.all.arp_announce = 2
net.ipv4.conf.all.arp_ignore = 1
net.ipv4.ip_forward = 1
_

^G Aide       ^O Écrire     ^W Chercher   ^K Couper     ^T Exécuter   ^C EmplacementM-U Annuler
^X Quitter    ^R Lire fich. ^\ Remplacer  ^U Coller     ^J Justifier  ^- Aller ligneM-E Refaire
```

```
  GNU nano 7.2                          /etc/keepalived/keepalived.conf
vrrp_script reload_haproxy {
        script "killall -0 haproxy"
        interval 1
}
vrrp_instance VI_1{
        virtual_router_id 100
        state BACKUP
        priority 90
        #Intervalle de contrôle
        advert_int 1
        #Interface de synchronisation entre les 2 haproxy
        lvs_sync_daemon_interface ens33
        interface ens33
        #authentification entre les 2 haproxy
        authentication {
                auth_type PASS
                auth_pass secret
        }
#adresse virtuelle
virtual_ipaddress{
        192.168.132.140/32 brd 192.168.132.255 scope global
        }
track_script{
        reload_haproxy
        }
}
```



Démonstration haproxy :



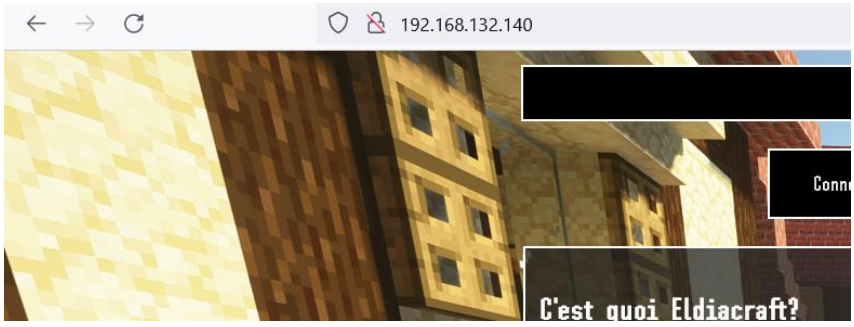
Démonstration keepalived :

srvhaproxy :

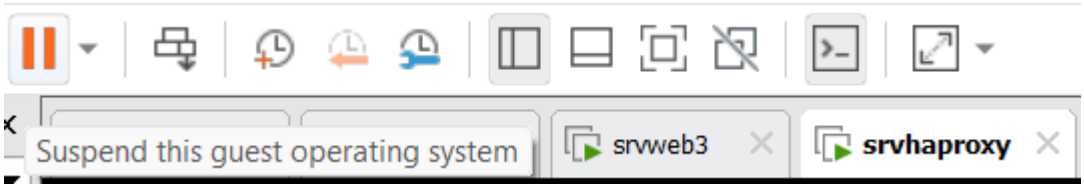
```
root@srvhaproxy1:~# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:2b:0f:b5 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.132.129/24 brd 192.168.132.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet 192.168.132.140/32 brd 192.168.132.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe2b:fb5/64 scope link
       valid_lft forever preferred_lft forever
3: ens36: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:2b:0f:bf brd ff:ff:ff:ff:ff:ff
    altname enp2s4
    inet 192.168.10.1/24 brd 192.168.10.255 scope global ens36
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe2b:fbf/64 scope link
       valid_lft forever preferred_lft forever
root@srvhaproxy1:~# _
```

srvhaproxy2 :

```
root@srvhaproxy1:~# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:47:4f:f7 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.132.130/24 brd 192.168.132.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe47:4ff7/64 scope link
       valid_lft forever preferred_lft forever
3: ens36: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:47:4f:01 brd ff:ff:ff:ff:ff:ff
    altname enp2s4
    inet 192.168.10.2/24 brd 192.168.10.255 scope global ens36
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe47:4f01/64 scope link
       valid_lft forever preferred_lft forever
root@srvhaproxy1:~#
```



srvhaproxy :



srvhaproxy2 :

```
root@srvhaproxy1:~# ip -c a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:47:4f:f7 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.132.130/24 brd 192.168.132.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet 192.168.132.140/32 brd 192.168.132.255 scope global ens33
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe47:4ff7/64 scope link
       valid_lft forever preferred_lft forever
3: ens36: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:47:4f:01 brd ff:ff:ff:ff:ff:ff
    altname enp2s4
    inet 192.168.10.2/24 brd 192.168.10.255 scope global ens36
       valid_lft forever preferred_lft forever
    inet6 fe80::20c:29ff:fe47:4f01/64 scope link
       valid_lft forever preferred_lft forever
root@srvhaproxy1:~# _
```