Installation sur conteneur LCX

Déploiement du conteneur:

Pour l'installation d'haproxy sur un conteneur lxc il y a certaines options à paramétrer:

```
resource "proxmox_lxc" "ha-servers" {
  count = 1
  hostname = "ha-front-0${1 + count.index}"
  target_node = "pve-front-01"
  ostemplate   = "/var/lib/vz/template/cache/debian-12-standard_12.0-1_amd64.tar.zst"
  unprivileged = false
  onboot = true
  start = true
  searchdomain = "kvega.local"
  memory = 1024
  cores = 1

  rootfs {
    storage = "local-lvm"
    size    = "8G"
  }

  features {
    fuse    = false
    nesting = true
    mount   = "nfs"
  }

  network {
    name   = "eth0"
    bridge = "vmbr1"
```

```
    ip     = "172.16.250.3/26"
    gw     = "172.16.250.1"
  }

  ssh_public_keys = <<-EOT
    Votre clé ssh publique
  EOT
}
```

Après avoir déployé le conteneur il faudra se connecter desssus en ssh.
Puis procéder comme suit:

1. Installer haproxy
   - `apt update -y && apt upgrade -y`
   - `apt install haproxy -y`
2. Vérifier le fonctionnement de haproxy

```
root@ha-front-01:~# systemctl status haproxy
* haproxy.service - HAProxy Load Balancer
     Loaded: loaded (/lib/systemd/system/haproxy.service; enabled; preset: enabled)
     Active: active (running) since Thu 2023-09-21 10:16:53 UTC; 32s ago
       Docs: man:haproxy(1)
             file:/usr/share/doc/haproxy/configuration.txt.gz
   Main PID: 2831 (haproxy)
      Tasks: 2 (limit: 4607)
     Memory: 39.2M
        CPU: 124ms
     CGroup: /system.slice/haproxy.service
             |-2831 /usr/sbin/haproxy -Ws -f /etc/haproxy/haproxy.cfg -p
/run/haproxy.pid -S /run/haproxy-master.sock
             `-2833 /usr/sbin/haproxy -Ws -f /etc/haproxy/haproxy.cfg -p
/run/haproxy.pid -S /run/haproxy-master.sock

Sep 21 10:16:53 ha-front-01 systemd[1]: Starting haproxy.service - HAProxy Load
Balancer...
Sep 21 10:16:53 ha-front-01 haproxy[2831]: [NOTICE]   (2831) : New worker (2833)
forked
Sep 21 10:16:53 ha-front-01 haproxy[2831]: [NOTICE]   (2831) : Loading success.
Sep 21 10:16:53 ha-front-01 systemd[1]: Started haproxy.service - HAProxy Load
```

```
Balancer.
```

3. Paramétrer le fichier de configuration haproxy pour avoir accès à la page de statistique

```
nano /etc/haproxy/haproxy.cfg
```

Ligne à ajouter à la fin du fichier:

```
global
        log /dev/log    local0
        log /dev/log    local1 notice
        chroot /var/lib/haproxy
        stats socket /run/haproxy/admin.sock mode 660 level admin
        stats timeout 30s
        user haproxy
        group haproxy
        daemon

        # Default SSL material locations
        ca-base /etc/ssl/certs
        crt-base /etc/ssl/private

        # See: https://ssl-config.mozilla.org/#server=haproxy&server-
version=2.0.3&config=intermediate
        ssl-default-bind-ciphers ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-
SHA256:ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-
CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-
AES256-GCM-SHA384
        ssl-default-bind-ciphersuites
TLS_AES_128_GCM_SHA256:TLS_AES_256_GCM_SHA384:TLS_CHACHA20_POLY1305_SHA256
        ssl-default-bind-options ssl-min-ver TLSv1.2 no-tls-tickets

listen stats
        bind :9000
        mode            http
        log             global

        maxconn 10
        timeout queue   100s
        timeout connect 5s
        timeout client 1m
        timeout server 1m
```

```
        stats enable
        stats hide-version
        stats refresh 30s
        stats show-node
        stats auth admin:password
        stats uri  /haproxy?stats
```

4. Tester la configuration haproxy:

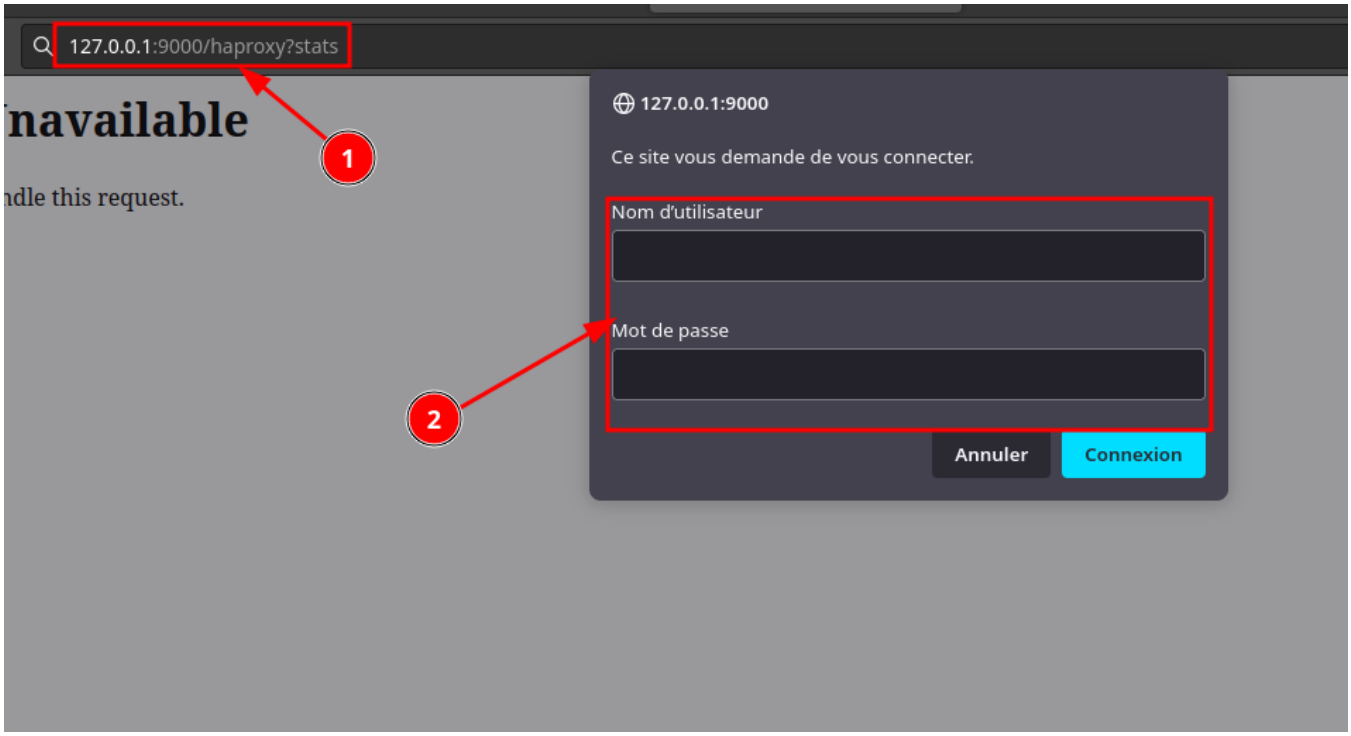
```
root@ha-front-01:~# haproxy -c -f /etc/haproxy/haproxy.cfg
Configuration file is valid
```

5. Si le fichier est valide on reload le serveur haproxy:

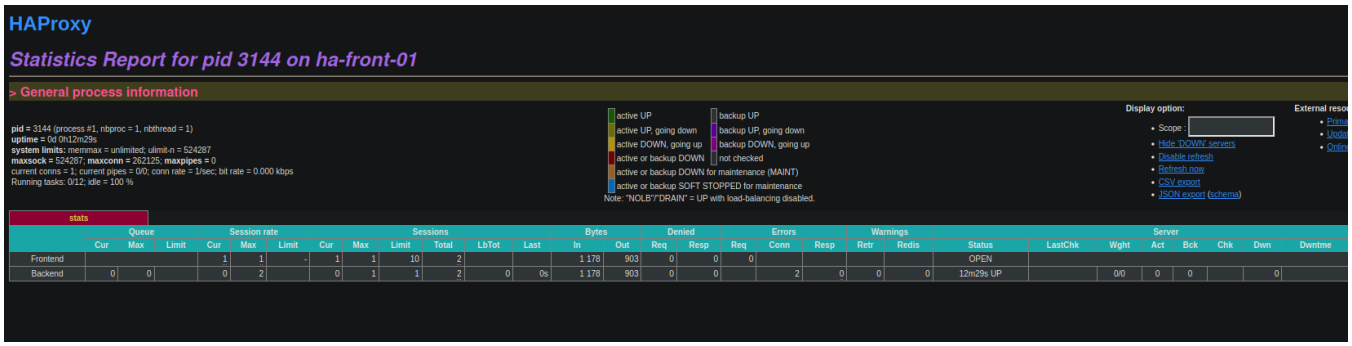
```
root@ha-front-01:~# systemctl reload haproxy.service
```

6. Pour tester si la page est OK et si le serveur haproxy est derriére un firewall on peut faire un tunnel ssh pour accéder à la page:
   Mise en place d'un tunnel SSH:

```
ssh -L 9000:172.16.250.3:9000 root@192.168.1.44
```



On atterit bien sur la page de statistiques de haproxy:


HAProxy
Statistics Report for pid 3144 on ha-front-01
> General process information
pid = 3144 (process #1, nbproc = 1, nbthread = 1)
uptime = 0d 0h12m29s
system limits: memmax = unlimited; ulimit-n = 524287
maxsock = 524287; maxconn = 262125; maxpipes = 0
current conns = 1; current pipes = 0/0; conn rate = 1/sec; bit rate = 0.000 kbps
Running tasks: 0/12; idle = 100 %
active UP
active UP, going down
active DOWN, going up
active or backup DOWN
active or backup DOWN for maintenance (MAINT)
active or backup SOFT STOPPED for maintenance
backup UP
backup UP, going down
backup DOWN, going up
not checked
Note: "NOLB"/"DRAIN" = UP with load-balancing disabled.
Display option:
Scope :
Hide 'DOWN' servers
Disable refresh
Refresh now
CSV export
JSON export (schema)
External reso
Prima
Updat
Online
stats
Queue
Session rate
Sessions
Bytes
Denied
Errors
Warnings
Server
Cur Max Limit Cur Max Limit Cur Max Limit Total LbTot Last In Out Req Resp Req Conn Resp Retr Redis Status LastChk Wght Act Bck Chk Dwn Dwntme
Frontend 1 1 - 1 1 10 2 1 178 903 0 0 0 OPEN
Backend 0 0 0 2 0 1 1 2 0 0s 1 178 903 0 0 2 0 0 0 12m29s UP 0/0 0 0 0
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