

# 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 dessus 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
```

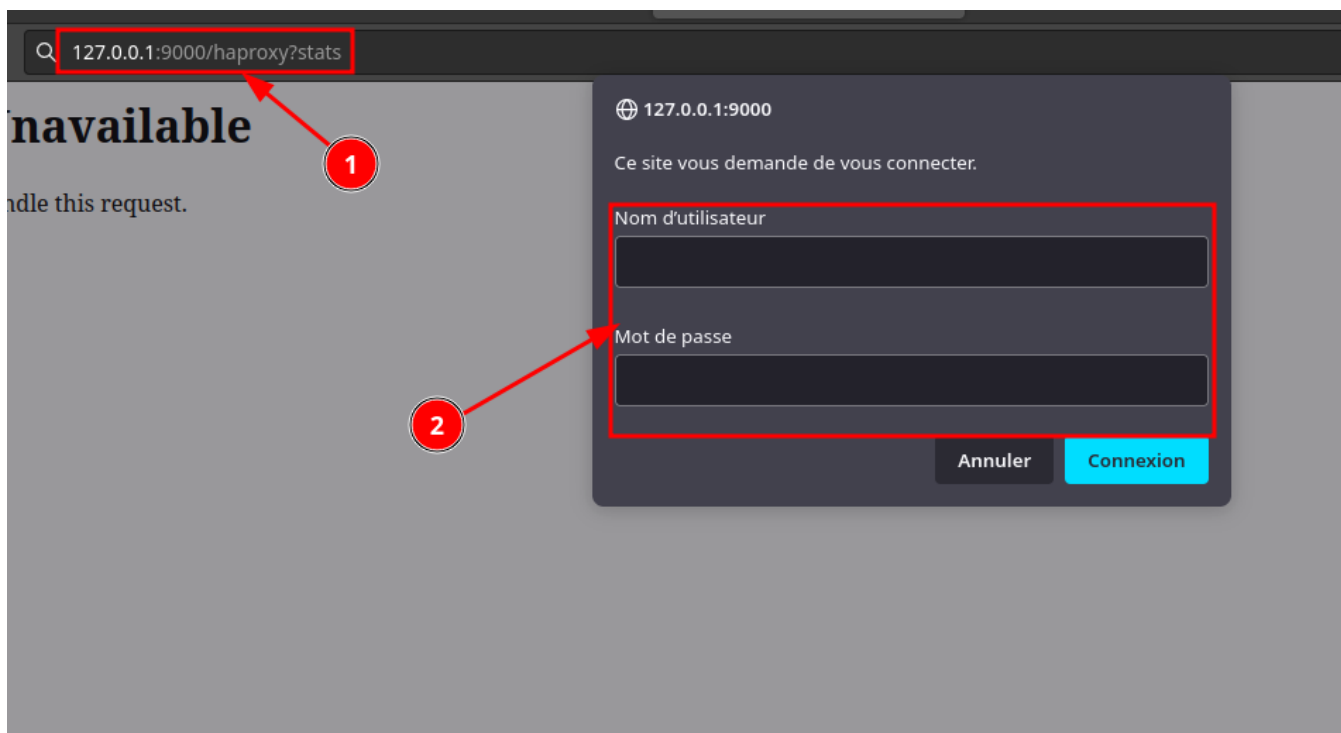
#### 5. Si le fichier est valide on reload le serveur haproxy:

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

#### 6. Pour tester si la page est OK et si le serveur haproxy est derrière 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, nproc = 1, nthread = 1)  
uptime = 0d 0h12m29s  
system limits: memmax = unlimited, limit0 = 524287  
maxsock = 524287, maxconn = 20215, maxpipes = 0  
current conn = 1, current pipes = 0/0, conn rate = 1/sec, bit rate = 0.000 kbps  
Running tasks: 0/12, idle = 100 %

active UP, active UP, backup UP, active UP, going down, backup UP, going down, active DOWN, going up, backup DOWN, going up, active or backup DOWN, not checked, active or backup DOWN for maintenance (MAINT), active or backup SOFT STOPPED for maintenance  
Note: "NO LB/DRAIN" = UP with load-balancing disabled.

Display option: External resou

- Scope
- Hide DOWN servers
- Disable refresh
- Refresh now
- CSV export
- JSON export (schema)

	Queue			Session rate			Sessions			LbTot	Last	Bytes		Denied		Errors		Warnings		Status	LastChk	Server			
	Cur	Max	Limit	Cur	Max	Limit	Cur	Max	Limit			Total	In	Out	Req	Resp	Req	Cont	Resp			Retr	Redis	Act	Bck
Frontend	1	1	-	1	1	-	10	2	2	0	0s	1178	903	0	0	0				OPEN					
Backend	0	0		0	2		1	2	0	0s	1178	903	0	0	2					12m29s UP		00	0	0	0

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