

Compte Rendu Installation Service WEB

Partie 1

1. Installation service WEB

Installer les paquets epel + installer les différents services

```
sudo yum install -y epel-release
sudo yum install -y nginx php php-fpm php-mysqlnd mariadb-server
php-8.0.30-3.el9_6.x86_64
php-fpm-8.0.30-3.el9_6.x86_64
php-opcache-8.0.30-3.el9_6.x86_64
policycoreutils-python-utils-3.6-3.el9.noarch
python3-libsemanage-3.6-5.el9_6.x86_64
python3-setuptools-53.0.0-15.el9.noarch
php-cli-8.0.30-3.el9_6.x86_64
php-mbstring-8.0.30-3.el9_6.x86_64
php-pdo-8.0.30-3.el9_6.x86_64
python3-audit-3.1.5-7.el9.x86_64
python3-policycoreutils-3.6-3.el9.noarch
rocky-logos-httpd-90.16-1.el9.noarch
Complete!
[jbludoh@localhost ~]$
```

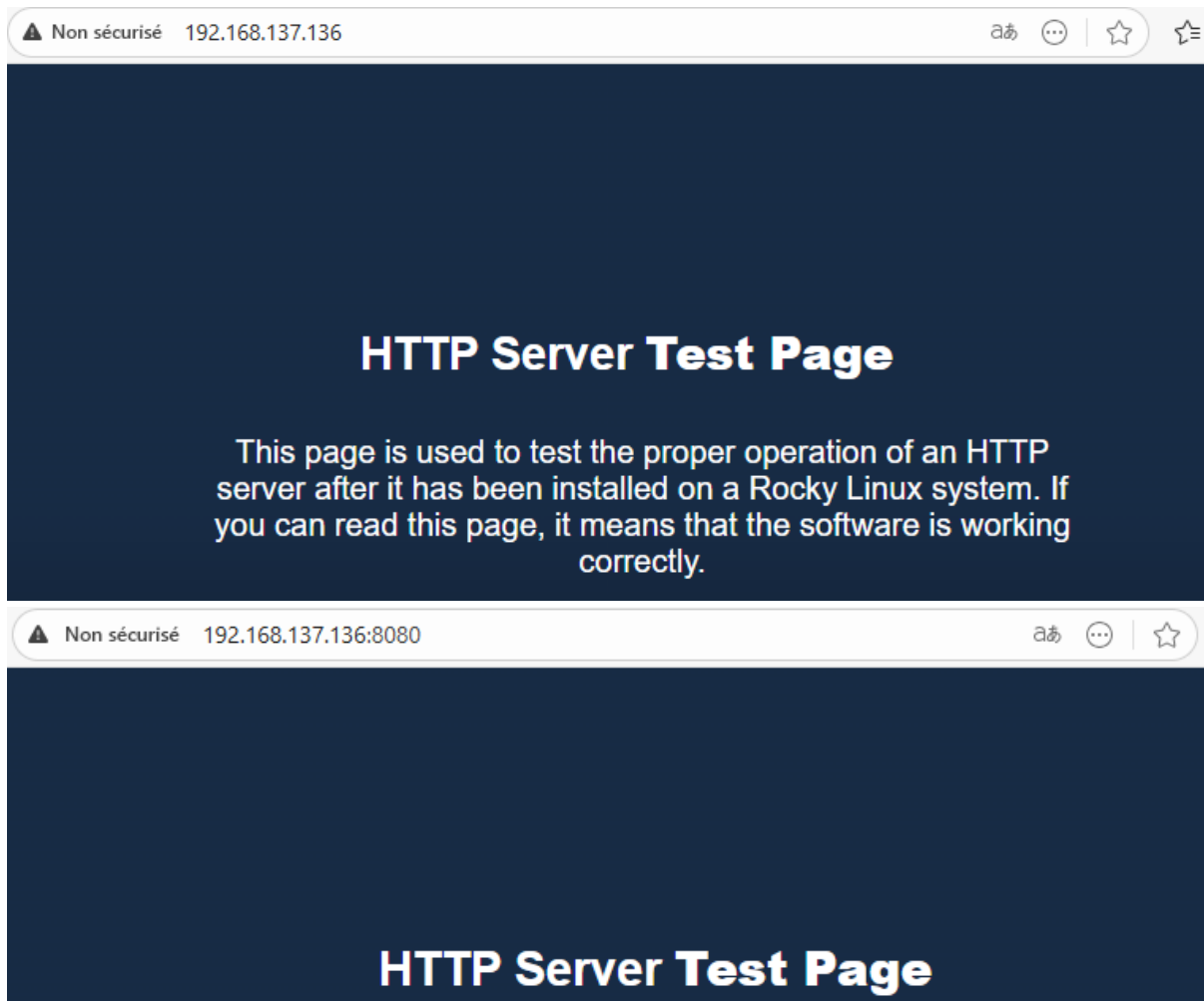
Changer le port d'écoute :

```
sudo nano /etc/nginx/nginx.conf
server {
    listen      80;
    listen      8080    default_server;
    listen      [::]:80;
    server_name _;
    root        /usr/share/nginx/html;
```

Ouverture des ports :

```
sudo firewall-cmd --add-port=80/tcp --permanent
sudo firewall-cmd --add-port=8080/tcp --permanent
sudo firewall-cmd --reload
sudo firewall-cmd --list-ports
[jbludoh@localhost nginx]$ sudo firewall-cmd --add-port=8080/tcp --permanent
success
[jbludoh@localhost nginx]$ sudo firewall-cmd --add-port=80/tcp --permanent
success
[jbludoh@localhost nginx]$ sudo firewall-cmd --reload
success
[jbludoh@localhost nginx]$ sudo firewall-cmd --list-ports
80/tcp 8080/tcp
[jbludoh@localhost nginx]$
```

Test de connexion :



2. Installation moteur BDD

Lancement de MariaDB au démarrage et configuration :

```
sudo systemctl enable --now mariadb.service  
mysql_secure_installation  
mysql -u root -p
```

```
[jbludoh@localhost nginx]# sudo systemctl enable --now mariadb.service
[sudo] password for jbludoh:
Created symlink /etc/systemd/system/mysql.service → /usr/lib/systemd/system/mariadb.service.
Created symlink /etc/systemd/system/mysqld.service → /usr/lib/systemd/system/mariadb.service.
Created symlink /etc/systemd/system/multi-user.target.wants/mariadb.service → /usr/lib/systemd/system/mariadb.service.
[ 3429.852051] systemd-rc-local-generator[20611]: /etc/rc.d/rc.local is not marked executable, skipping.

[jbludoh@localhost ~]# sudo mysql -u root -p
[sudo] password for jbludoh:
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 10
Server version: 10.5.27-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

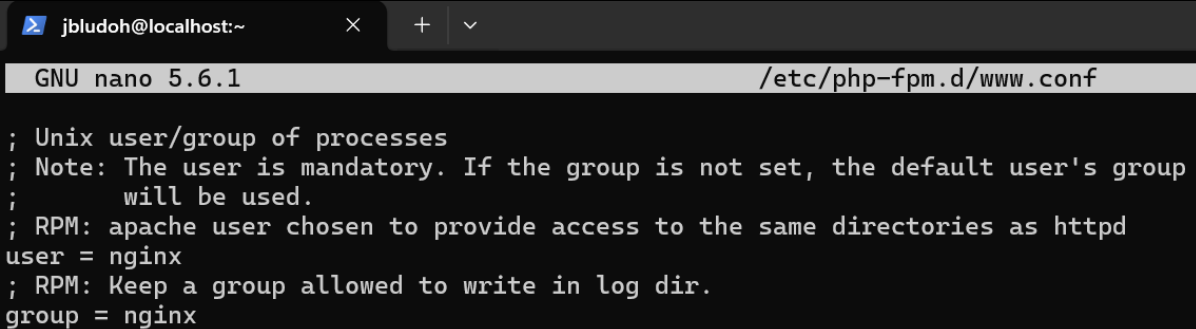
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]>
```

3. Déploiement du site FR et UK

Modification des paramètres de php-fpm :

```
sudo nano /etc/php-fpm.d/www.conf
```



```
GNU nano 5.6.1 /etc/php-fpm.d/www.conf

; Unix user/group of processes
; Note: The user is mandatory.  If the group is not set, the default user's group
; will be used.
; RPM: apache user chosen to provide access to the same directories as httpd
user = nginx
; RPM: Keep a group allowed to write in log dir.
group = nginx
```

Création du fichier de configuration nginx :

```
sudo nano /etc/nginx/conf.d/site_ecommerce.fr.conf
```



```
server {
    listen 80;
    listen [::]:80;

    root /var/www/ecommerce.fr/;
    index index.html index.htm index.nginx-debian.html sign-up.php;

    server_name ecommerce.fr;
    location ~* \.php$ {
        fastcgi_pass unix:/run/php-fpm/www.sock;
        include fastcgi_params;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        fastcgi_param SCRIPR_NAME $fastcgi_script_name;
    }
    access_log /var/log/nginx/access_ecommerce.fr.log;
    error_log /var/log/nginx/error_ecommerce.fr.log;
    location / {
        try_files $uri $uri/ =404;
    }
}
```

Modification du fichier config.php :

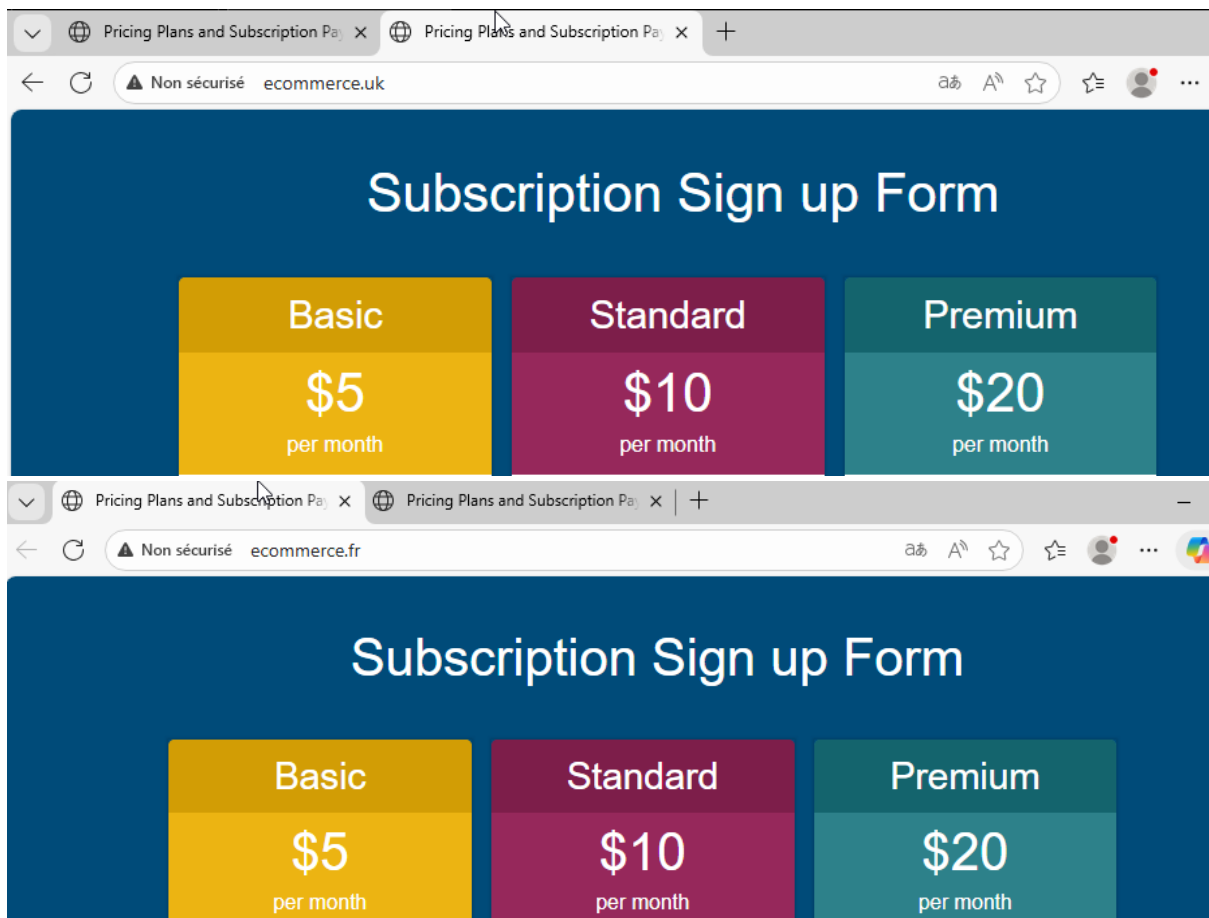
```
sudo nano /var/www/ecommerce.fr/config.php

jbludoh@localhost:~
GNU nano 5.6.1 /var/www/ecommerce.fr/config.php
<?php
$SETTINGS["mysql_user"]='jbludoh';
$SETTINGS["mysql_pass"]='R5_VsrvWEB#01';
$SETTINGS["hostname"]='localhost';
$SETTINGS["mysql_database"]='FR';
$SETTINGS["data_table"]='registrations';
$SETTINGS["paypal_address"]='email@domain.com';
?>

MariaDB [(none)]> use FR
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [FR]> source /var/www/ecommerce.fr/database.sql
```

Test d'accès :



Logs :

```
sudo ls -lrt
MariaDB [(none)]> GRANT ALL on FR.* to 'jbludoh'@'192.168.218.145' IDENTIFIED BY 'BTSinfo2026'
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)


MariaDB [(none)]> GRANT ALL on UK.* to 'jbludoh'@'192.168.218.145' IDENTIFIED BY 'BTSinfo2026'
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.000 sec)
[jbludoh@localhost nginx]$ sudo ls -lrt
total 36
-rw-r--r--. 1 root  root  587 Dec  5 11:45 error.log-20260130
-rw-r--r--. 1 root  root 2935 Dec  5 11:48 access.log-20260130
-rw-r-----. 1 nginx root    0 Jan 30 08:38 error.log
-rw-r-----. 1 nginx root    0 Jan 30 08:38 access.log
-rw-r--r--. 1 root  root    0 Jan 30 08:38 error_ecommerce.fr.log
-rw-r--r--. 1 root  root 7270 Feb 11 11:12 access_ecommerce.fr.log-20260213
-rw-r-----. 1 nginx root 1064 Feb 13 08:50 access_ecommerce.fr.log
-rw-r--r--. 1 root  root 5733 Feb 13 08:50 error_ecommerce.uk.log
-rw-r--r--. 1 root  root 5370 Feb 13 08:58 access_ecommerce.uk.log
[jbludoh@localhost nginx]$
```

4. Restriction adresse IP

Création du fichier blockip.conf, test avec une IP:

```
sudo nano /etc/nginx/blockip.conf
[jbludoh@localhost ~]$ sudo nano /etc/nginx/blockip.conf
```



```
GNU nano 5.6.1 /etc/nginx/blockip.conf
deny 192.168.218.128;
```

5. Analyse des Logs

Installation et utilisation de goaccess :

```
sudo yum install -y goaccess
goaccess -f /var/log/nginx/access.log
```

```
Installed:
  goaccess-1.9.4-2.el9.x86_64                libmaxminddb-1.5.2-4.el9.x86_64

Complete!
[jbludoh@localhost ~]$
```

```
WEB01  WEB02
-----+-----
Log Format Configuration
[SPACE] to toggle - [ENTER] to proceed - [q] to quit

[x] NCSA Combined Log Format
[ ] NCSA Combined Log Format with Virtual Host
[ ] Common Log Format (CLF)
[ ] Common Log Format (CLF) with Virtual Host
[ ] W3C
[ ] CloudFront (Download Distribution)

Log Format - [c] to add/edit format
%h %^[%d:%t %^] "%r" %s %b "%R" "%u"

Date Format - [d] to add/edit format
%d/%b/%Y

Time Format - [t] to add/edit format
%H:%M:%S
-----+-----
```

```
WEB01  WEB02
-----+-----
Dashboard - Overall Analyzed Requests

Total Requests 0 Unique Visitors 0 Requested Files 0 Referrers 0
Valid Requests 0 Log Parsing Time 1s Static Files 0 Log Size 0.0 B
Failed Requests 0 Excl. IP Hits 0 Not Found 0 Tx. Amount 0.0 B
Log Source /var/log/nginx/access.log

> 1 - Unique visitors per day - Including spiders

2 - Requested Files (URLs)
```



```

server_name ecommerce.fr ;

location ~* \.php$ {
    fastcgi_pass unix:/run/php-fpm/www.sock;
    include    fastcgi_params;
    fastcgi_param SCRIPT_FILENAME
$document_root$fastcgi_script_name;
    fastcgi_param SCRIPT_NAME    $fastcgi_script_name;
}
access_log /var/log/nginx/access_ecommerce.fr.log;
error_log /var/log/nginx/error_ecommerce.fr.log;
location / {
    try_files $uri $uri/ =404;
}
}

```

```

GNU nano 5.6.1 /etc/nginx/conf.d/site_ecommerce.uk.conf
}
access_log /var/log/nginx/access_ecommerce.uk.log;
error_log /var/log/nginx/error_ecommerce.uk.log;
location / {
    try_files $uri $uri/ =404;
}
}
server {
listen 443 http2 ssl;
listen [::]:443 http2 ssl;

ssl_certificate /etc/ssl/certs/nginx-selfsigned.crt;
ssl_certificate_key /etc/ssl/private/nginx-selfsigned.key;
ssl_dhparam /etc/ssl/certs/dhparam.pem;

root /var/www/ecommerce.uk/;
index index.html index.htm index.nginx-debian.html sign-up.php;
server_name ecommerce.uk ;

location ~* \.php$ {
    fastcgi_pass unix:/run/php-fpm/www.sock;
    include    fastcgi_params;
    fastcgi_param SCRIPT_FILENAME    $document_root$fastcgi_script_name;
    fastcgi_param SCRIPT_NAME        $fastcgi_script_name;
}
access_log /var/log/nginx/access_ecommerce.uk.log;
error_log /var/log/nginx/error_ecommerce.uk.log;
location / {
    try_files $uri $uri/ =404;
}
}

```

Ouverture du port https :

```

sudo firewall-cmd --add-port=443/tcp -permanent
sudo firewall-cmd --reload
sudo firewall-cmd --list-ports

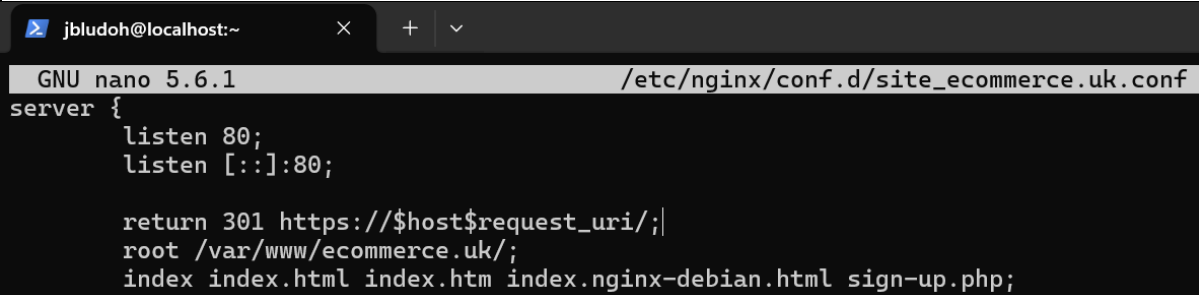
```

```
[jbludoh@localhost ~]$ sudo firewall-cmd --add-port=443/tcp --permanent
success
[jbludoh@localhost ~]$ sudo firewall-cmd --reload
success
[jbludoh@localhost ~]$ sudo firewall-cmd --list-ports
80/tcp 443/tcp 8080/tcp
```

Retrait de l'http :

```
sudo firewall-cmd --remove-service=http
sudo firewall-cmd --list-service
[jbludoh@localhost ~]$ sudo firewall-cmd --remove-service=http
Warning: NOT_ENABLED: 'http' not in 'public'
success
[jbludoh@localhost ~]$ sudo firewall-cmd --list-service
cockpit dhcpv6-client ssh
```

```
return 301 https://$host$request_uri/;
```



```
server {
    listen 80;
    listen [::]:80;

    return 301 https://$host$request_uri/;
    root /var/www/ecommerce.uk/;
    index index.html index.htm index.nginx-debian.html sign-up.php;
```

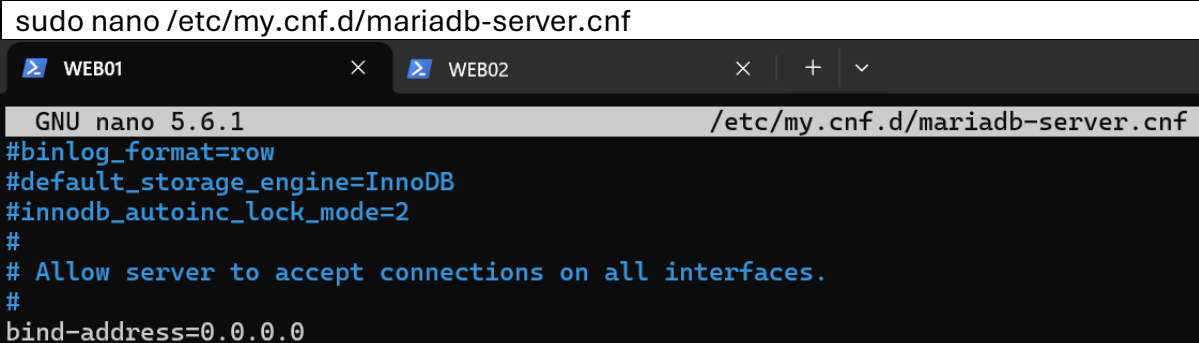
Partie 3

[Sur WEB01] Ouverture du port 3306 sur le firewall :

```
sudo firewall-cmd --add-port=3306/tcp --permanent
[jbludoh@localhost ~]$ sudo firewall-cmd --add-port=3306/tcp --permanent
[sudo] password for jbludoh:
success
[jbludoh@localhost ~]$ |
```

Autorisation des connexions extérieures sur le moteur BDD : Modification du fichier /etc/my.cnf.d/mariadb-server.cnf en décommentant la ligne bind-address=0.0.0.0 :

```
sudo nano /etc/my.cnf.d/mariadb-server.cnf
```



```
GNU nano 5.6.1 /etc/my.cnf.d/mariadb-server.cnf
#binlog_format=row
#default_storage_engine=InnoDB
#innodb_autoinc_lock_mode=2
#
# Allow server to accept connections on all interfaces.
#
bind-address=0.0.0.0
```

Attribution des droits d'accès sur le moteur BDD de WEB01 pour un utilisateur à partir de WEB02 :

```
GRANT ALL on FR.* to 'jbludoh'@'192.168.218.145' IDENTIFIED BY 'BTSinfo2026';
GRANT ALL on UK.* to 'jbludoh'@'192.168.218.145' IDENTIFIED BY 'BTSinfo2026';
FLUSH PRIVILEGES;
```

```
MariaDB [(none)]> GRANT ALL on FR.* to 'jbludoh'@'192.168.218.145' IDENTIFIED BY 'BTSinfo2026';
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> GRANT ALL on UK.* to 'jbludoh'@'192.168.218.145' IDENTIFIED BY 'BTSinfo2026';
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.000 sec)
```

```
[jbludoh@localhost ~]$ sudo yum install haproxy

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

 #1) Respect the privacy of others.
 #2) Think before you type.
 #3) With great power comes great responsibility.

[sudo] password for jbludoh:
Rocky Linux 9 - BaseOS                4.2 MB/s | 15 MB      00:03
Rocky Linux 9 - AppStream             2.9 MB/s | 16 MB      00:05
Rocky Linux 9 - Extras                6.5 kB/s | 17 kB       00:02
Dependencies resolved.

=====
Package           Architecture Version           Repository      Size
=====
Installing:
haproxy           x86_64         2.8.14-1.el9_7.1 appstream       2.5 M
```

```
sudo cp /etc/haproxy/haproxy.cfg /home/jbludoh/
sudo nano /etc/haproxy/haproxy.cfg
```

```
GNU nano 5.6.1 /etc/haproxy/haproxy.cfg
#-----
# common defaults that all the 'listen' and 'backend' sections will
# use if not designated in their block
#-----
defaults
  mode tcp
  listen stats
  bind *:8080
  mode http
  stats enable
  stats hide-version
  stats uri /stats
  stats admin if LOCALHOST
  stats auth haproxy:haproxy

#-----
# main frontend which proxys to the backends
#-----
frontend main
  bind *:80
  acl url_static      path_beg       -i /static /images /javascript /stylesheets
  acl url_static      path_end       -i .jpg .gif .png .css .js

  # use_backend static      if url_static
  default_backend      app

#-----
# static backend for serving up images, stylesheets and such
#-----
backend static
  balance roundrobin
  server      static 127.0.0.1:4331 check

#-----
# round robin balancing between the various backends
#-----
backend app
  balance roundrobin
  server web01 192.168.218.128:443 ssl verify none check
  server web02 192.168.218.145:443 ssl verify none check
```

```
GNU nano 5.6.1 /etc/rsyslog.conf
# Provides UDP syslog reception
# for parameters see http://www.rsyslog.com/doc/imudp.html
module(load="imudp") # needs to be done just once
input(type="imudp" port="514")
```

```
[jbludoh@localhost ~]$ sudo setsebool -P haproxy_connect_any 1
[jbludoh@localhost ~]$ sudo systemctl start haproxy
[jbludoh@localhost ~]$ sudo systemctl start rsyslog
```



```
frontend main
  bind *:80
  bind *:443 ssl crt /etc/pki/tls/certs/haproxy.pem
  acl url_static      path_beg      -i /static /images /javascript /stylesh
  acl url_static      path_end      -i .jpg .gif .png .css .js
```

```
[jbludoh@localhost ~]$ sudo systemctl enable --now haproxy
Created symlink /etc/systemd/system/multi-user.target.wants/haproxy.service → /usr/lib/systemd/system/haproxy.service.
[jbludoh@localhost ~]$ sudo systemctl status haproxy
● haproxy.service - HAProxy Load Balancer
   Loaded: loaded (/usr/lib/systemd/system/haproxy.service; enabled; preset: disabled)
   Active: active (running) since Fri 2026-02-27 15:41:51 CET; 41s ago
```