

# HAProxy

## Installing and configuring HAProxy on CentOS 7

### 1. Install dependencies

```
yum install openssl-devel pcre-devel make gcc -y
```

### 2. Download source code

Download the sources of HAProxy stable version

```
cd /tmp
wget http://www.haproxy.org/download/1.7/src/haproxy-1.7.2.tar.gz -O- | tar -zx
```

### 3. Build HAProxy

Go to the unpacked directory with sources and run `make`

```
cd haproxy-*
make TARGET=linux2628 USE_PCRE=1 USE_OPENSSL=1 USE_ZLIB=1 USE_CRYPT_H=1
USE_LIBCRYPT=1
make install
```

### 4. Create a user named `haproxy`

```
useradd haproxy
```

### 5. Create a directory named `/var/lib/haproxy/`

```
mkdir /var/lib/haproxy/
```



### 6. Create a .pem file from certificates imported to the WCS server

```
cat test.flashphoner.com.crt ca.pem sub.class2.server.ca.pem
test.flashphoner.com.key | tee test.flashphoner.com.pem
```

Where (suppose the certificates are from [StartSSL](#)): - `test.flashphoner.com.crt` - certificate file - `test.flashphoner.com.key` - private key file - `ca.pem` - root certificate - `sub.class2.server.ca.pem` - intermediate certificate

## 7. Create the configuration file

Create the file `/etc/haproxy/haproxy.cfg` with the following content:

 `/etc/haproxy/haproxy.cfg` 

In the line

```
bind SET_YOUR_IP:443 ssl crt /path/to/your/certificate/cert.pem
```

replace: - `SET_YOUR_IP` with the public IP of the WCS server  
- `/path/to/your/certificate/cert.pem` - to the .pem file created from certificates imported to the WCS server

## 8. Create the init file

Create the init file `/etc/init.d/haproxy` with the following contents:

 `/etc/init.d/haproxy` 

## 9. Add haproxy to autostart

```
chmod a+x /etc/init.d/haproxy
chkconfig --add haproxy
chkconfig haproxy on
```

## 10. Start haproxy

```
service haproxy start
```

## Verifying HAProxy

1. Make sure haproxy listens to the port 443

```
netstat -antp | grep 443
```

Example of the command execution result:

```
tcp 0 0 192.168.1.1:443 0.0.0.0:* LISTEN 24083/haproxy
```

If the port is occupied by another service, terminate the corresponding process and restart haproxy:

```
service haproxy restart
```

2. Make sure the certificates used to create the .pem file specified in `haproxy.cfg` are imported to the WCS server

You can read more about certificates for the WCS server here: [Websocket SSL](#)

3. Open the WCS server control panel via HTTPS

```
https://<domain name or IP of the WCS server>:8888/admin/
```

4. Verify operation of the demo example with the port 443

Open Two Way streaming demo example, change the wss port to 443 and start publishing the stream