

Proxy inverso y balanceo de carga con SSL en NGINX

Para configurar nuestro servidor con SSL deberemos tener un certificado y una clave, los podemos generar con el siguiente comando:

```
“sudo openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout /etc/nginx/ssl/mi-certificado.key -out /etc/nginx/ssl/mi-certificado.crt”
```

Nos pedirán los datos para el certificado:

```
Country Name (2 letter code) [AU]:ES
State or Province Name (full name) [Some-State]:Cordoba
Locality Name (eg, city) []:Cordoba
Organization Name (eg, company) [Internet Widgits Pty Ltd]:IES Gran Capitan
Organizational Unit Name (eg, section) []:IES Gran Capitan
Common Name (e.g. server FQDN or YOUR name) []:www.a24gadilu.local
Email Address []:lucia44ee@gmail.com
```

Es muy importante que en el common name del certificado pongamos el nombre de FQDN de nuestro servidor (www.a24gadilu.local).

Ahora deberemos configurar el archivo de nginx y añadirle el ssl para que escuche en el puerto 443:

```
GNU nano 7.2 a24gadilu
upstream apache_servers {
    server 192.168.201.10;
    server 192.168.201.15;
}

server {
    listen 443 ssl;
    server_name www.a24gadilu.local;

    ssl_certificate /etc/nginx/ssl/mi-certificado.crt;
    ssl_certificate_key /etc/nginx/ssl/mi-certificado.key;

    location / {
        proxy_pass http://apache_servers;
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection 'upgrade';
        proxy_set_header Host $host;
        proxy_cache_bypass $http_upgrade;
    }
}
```

Ahora para redireccionar del puerto 80 al 443 deberemos añadir otro bloque con lo siguiente:

```
GNU nano 7.2 a24gadilu
server {
    listen 443 ssl;
    server_name www.a24gadilu.local;

    ssl_certificate /etc/nginx/ssl/mi-certificado.crt;
    ssl_certificate_key /etc/nginx/ssl/mi-certificado.key;

    location / {
        proxy_pass http://apache_servers;
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection 'upgrade';
        proxy_set_header Host $host;
        proxy_cache_bypass $http_upgrade;
    }
}

server {
    listen 80;
    server_name www.a24gadilu.local;

    location / {
        return 301 https://$host$request_uri;
    }
}
```

Reiniciamos nginx una vez guardada la configuración.

Ahora accederemos a los log para ver el acceso:

“sudo tail -f /var/log/nginx/access.log”

```
a24gadilu@debian:/etc/nginx/sites-available$ sudo tail -f /var/log/nginx/access.log
192.168.116.207 - - [21/Oct/2024:09:01:46 +0200] "GET / HTTP/1.1" 200 95 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:46 +0200] "GET /favicon.ico HTTP/1.1" 404 247 "http://www.a24gadilu.local:8080/" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:48 +0200] "GET / HTTP/1.1" 200 95 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:52 +0200] "GET / HTTP/1.1" 200 99 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:53 +0200] "GET / HTTP/1.1" 200 95 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:53 +0200] "GET / HTTP/1.1" 200 99 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:54 +0200] "GET / HTTP/1.1" 200 95 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:54 +0200] "GET / HTTP/1.1" 200 99 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
192.168.116.207 - - [21/Oct/2024:09:01:54 +0200] "GET / HTTP/1.1" 200 99 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/129.0.0.0 Safari/537.36"
```

Ahora accedemos a nuestro dominio www.a24gadilu.local y nos aparecerá ya por ssl pero nos dirá que no es seguro debido a que el certificado lo he firmado yo misma.

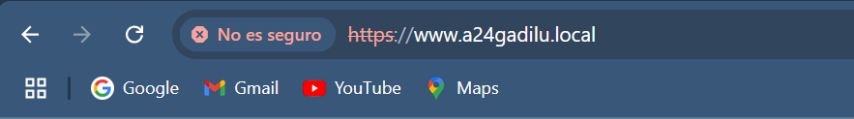


Tabla del 1

- 1 x 1 = 1
- 1 x 2 = 2
- 1 x 3 = 3
- 1 x 4 = 4
- 1 x 5 = 5
- 1 x 6 = 6
- 1 x 7 = 7
- 1 x 8 = 8
- 1 x 9 = 9
- 1 x 10 = 10

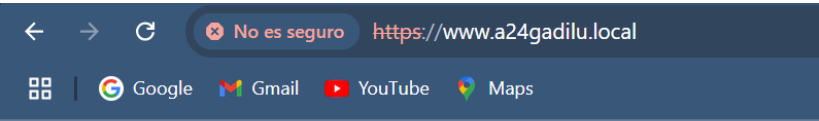


Tabla del 2

- 2 x 1 = 2
- 2 x 2 = 4
- 2 x 3 = 6
- 2 x 4 = 8
- 2 x 5 = 10
- 2 x 6 = 12
- 2 x 7 = 14
- 2 x 8 = 16
- 2 x 9 = 18
- 2 x 10 = 20

