

Pasos para trabajar con pki y apache:
Instalar Apache (dnf install httpd)

```
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo dnf install httpd
[sudo] password for lab-3-5:
Updating and loading repositories:
Repositories loaded.
Package "httpd-2.4.63-1.fc41.x86_64" is already installed.
```

ver si existen las claves server y cliente pki

```
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo ls /usr/share/easy-rsa/3.2.2/pki/private/
[sudo] password for lab-3-5:
ca.key  redes_cliente.key  redes.key
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo ls /usr/share/easy-rsa/3.2.2/pki/issued/
redes_cliente.crt  redes.crt
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$
```

mover las claves al apache

```
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo cp /usr/share/easy-rsa/3.2.2/pki/issued/redes.crt /etc/pki/tls/certs/
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo cp /usr/share/easy-rsa/3.2.2/pki/private/redes.key /etc/pki/tls/private/
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo vi /etc/httpd/conf.d/ssl.conf
```

bash

Copy

```
<IfModule mod_ssl.c>
    Listen 443 https

    <VirtualHost _default_:443>
        ServerAdmin webmaster@yourdomain.com
        DocumentRoot "/var/www/html"
        ServerName yourdomain.com

        # SSL Certificate files
        SSLEngine on
        SSLCertificateFile /ruta/a/tu/certificado/redes_cliente.crt
        SSLCertificateKeyFile /ruta/a/tu/clave/redes_cliente.key
        SSLCertificateChainFile /ruta/a/tu/certificado/intermedio.pem # Si tienes

        # Configuraciones adicionales de seguridad SSL
        SSLProtocol all -SSLv2 -SSLv3
        SSLCipherSuite HIGH:!aNULL:!MD5:!3DES
        SSLHonorCipherOrder on
    </VirtualHost>
</IfModule>
```

guardar con “:wq”

reiniciar el httpd

```
[6]+ Stopped sudo vi /etc/httpd/conf.d/ssl.conf}
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo vi /etc/httpd/conf.d/ssl.conf}
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo vi /etc/httpd/conf.d/ssl.conf}
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo systemctl restart httpd
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo systemctl restart httpd
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Drop-In: /usr/lib/systemd/system/service.d
           └─10-timeout-abort.conf, 50-keep-warm.conf
   Active: active (running) since Tue 2025-04-01 19:23:31 CST; 9s ago
 Invocation: 86c6d668490c47cb996a22e4f6f7f489
    Docs: man:httpd.service(8)
   Main PID: 7415 (httpd)
  Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec: 0 B/sec"
    Tasks: 177 (limit: 18586)
  Memory: 14.2M (peak: 16M)
    CPU: 70ms
   CGroup: /system.slice/httpd.service
           └─7415 /usr/sbin/httpd -DFOREGROUND
             └─7417 /usr/sbin/httpd -DFOREGROUND
               └─7419 /usr/sbin/httpd -DFOREGROUND
                 └─7420 /usr/sbin/httpd -DFOREGROUND
                   └─7421 /usr/sbin/httpd -DFOREGROUND

Apr 01 19:23:30 lab-3-5-WS-22.ecci.ucr.ac.cr systemd[1]: Starting httpd.service - The Apache HTTP Server...
Apr 01 19:33:17 lab-3-5-WS-22.ecci.ucr.ac.cr (httpd)[8095]: httpd.service: Referenced but unset environment variable evaluates to an empty string: OPTIONS
Apr 01 19:33:17 lab-3-5-WS-22.ecci.ucr.ac.cr httpd[8095]: Server configured, listening on: port 80
Apr 01 19:33:17 lab-3-5-WS-22.ecci.ucr.ac.cr systemd[1]: Started httpd.service - The Apache HTTP Server.
lab-3-5@lab-3-5-WS-22:/usr/share/easy-rsa/3.2.2$
```

abrir un local hot

← → ↻

localhost

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Fedora Webserver Test Page

If you can read this page, it means that the web server installed at this site is working properly, but has not yet been configured.

If you are a member of the general public:

The website you just visited is either **experiencing problems** or **undergoing routine maintenance**.

To let the administrators of this website know that you are seeing this page and not what you were expecting, an e-mail addressed to "webmaster" at the website's domain should reach an appropriate person. For example, if you saw this page while visiting **www.example.com**, you could send e-mail to **webmaster@example.com**.

Fedora is a distribution of Linux, a popular computer operating system. It is commonly used by hosting companies because it is free, and includes free web server software. This "test page" is shown instead of the expected website if they do not set up their web server correctly.

Accordingly, please keep these facts in mind:

- Neither the Fedora Project or Red Hat has any affiliation with any website or content hosted from this server (unless otherwise explicitly stated).
- Neither the Fedora Project or Red Hat has "hacked" this webserver; this test page is an included component of the Fedora webserver software.

For more information about Fedora, please visit the [Fedora Project website](#).

If you are the website administrator:

You may now add content to the webroot directory. Note that until you do so, people visiting your website will see this page, and not your content.

For systems using Apache Webserver: You may now add content to the directory `/var/www/html/`. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf.d/welcome.conf`.

For systems using Nginx: You should now put your content in a location of your choice and edit the `root` configuration directive in the **nginx** configuration file `/etc/nginx/nginx.conf`.

For systems using Caddy: You should now put your content in a location of your choice and edit the `root` configuration directive in the **Caddy** configuration file `/etc/caddy/Caddyfile`.

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