

Carlos Alberto Rasgo Solano

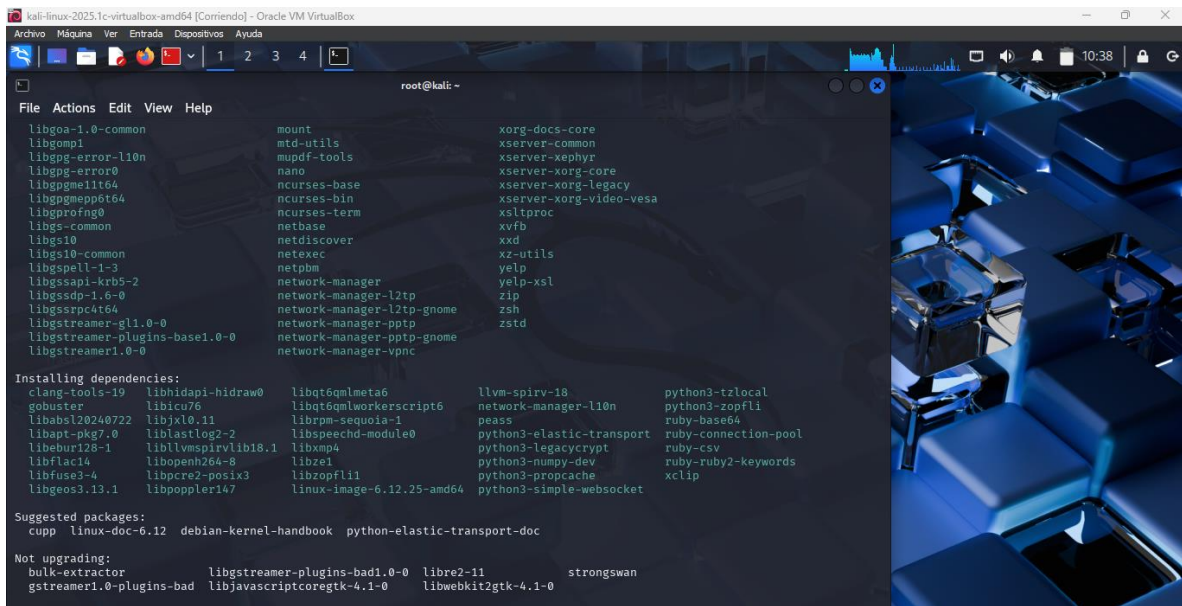
Configuración del certificado SSL



```
kali-linux-2025.1c-virtualbox-amd64 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

root@kali ~
# sudo apt update
Get:1 http://kali.download/kali kali-rolling InRelease [41.5 kB]
Get:2 http://kali.download/kali kali-rolling/main amd64 Packages [21.0 MB]
Get:3 http://kali.download/kali kali-rolling/main amd64 Contents (deb) [52.0 MB]
37% [2 Packages store 0 B] [3 Contents-amd64 139 kB/52.0 MB 0%] 2,129 kB/s 25%
```

Antes de realizar estos procedimientos debemos actualizar e instalar las actualizaciones debidas en Kali



```
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Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

root@kali ~
# sudo apt update
# sudo apt install

libgos-1.0-common mount xorg-docs-core
libgomp1 mtd-utils xserver-common
libgpg-error-l10n mupdf-tools xserver-xephyr
libgpg-error0 nano xserver-xorg-core
libgpgmell1t64 ncurses-base xserver-xorg-legacy
libgpgmepp6t64 ncurses-bin xserver-xorg-video-vesa
libgprofng0 ncurses-term xsltproc
libgs-common netbase xvfb
libgs10 netdiscover xxd
libgs10-common netexec xz-utils
libgssapi-krb5-2 netpbm yelp
libgssdp-1.6-0 network-manager yelp-xsl
libgssrpc4t64 network-manager-l2tp zip
libgstreamer-gli1.0-0 network-manager-l2tp-gnome zsh
libgstreamer-plugins-base1.0-0 network-manager-pptp zstd
libgstreamer1.0-0 network-manager-vpnc

Installing dependencies:
clang-tools-19 libhidapi-hidraw0 libqt6qmlmeta6 llvm-spirv-18 python3-tzlocal
gobuster libicu76 libqt6qmlworkerscript6 network-manager-l10n python3-zopfli
libabsl20240722 libjxl0.11 librpm-sequoia-1 peass ruby-base64
libapt-pkg7.0 liblastlog2-2 libspeechd-module0 python3-elastic-transport ruby-connection-pool
libebur128-1 libllvmspirvlib18.1 libxmp4 python3-legacycrypt ruby-csv
libflac14 libhopenh264-8 libz1 python3-numpy-dev ruby-ruby2-keywords
libfuse3-4 libpcrc2-posix3 libzopfli1 python3-propcache xclip
libgeos3.13.1 libpoppler147 linux-image-6.12.25-amd64 python3-simple-websocket

Suggested packages:
cupp linux-doc-6.12 debian-kernel-handbook python-elastic-transport-doc

Not upgrading:
bulk-extractor libgstreamer-plugins-bad1.0-0 libre2-11 strongswan
gstreamer1.0-plugins-bad libjavascriptcoregtk-4.1-0 libwebkit2gtk-4.1-0
```

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```
kali-linux-2025.1c-virtualbox-amd64 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
File Actions Edit View Help
3depict
4g8
4pane
4ti2
4ti2-doc
6tunnel
7kaa
7kaa-data
7zip
7zip-rar
7zip-standalone
9base
9menu
9mount
9wm
64tass
81vold
389-ds
389-ds-base
root@kali: ~
libpeasd-3-dev
libpeas-dev
libpeas-doc
libpe-dev
libpegdown-java
libpegex-perl
libpentaho-reporting-flow-engine-java
libpentaho-reporting-flow-engine-java-doc
libpeony3t64
libpeony-dev
libperfmark-java
libperformance0.6
libperformance-dev
libperformance-test-fixture0d
libperformance-test-fixture-dev
libperinci-cmdline-perl
libperinci-object-perl
libperinci-sub-normalize-perl
libperinci-sub-util-perl
root@kali: ~
$ sudo apt install apache2 -y
apache2 is already the newest version (2.4.63-1).
The following packages were automatically installed and are no longer required:
icu-devtools libglapi-mesa libpython3.12-minimal python3-aiosqlite python3-dunamai python3-setproctitle sphinx-rtd-theme-common
libflac12t64 libicu-dev libpython3.12-stdlib python3-arc4 python3-nfsclient python3-tomlkit strongswan
libfuse3-3 liblibgs0 python3.12t64 python3-arc4 python3-poetry-dynamic-versioning python3-tk
libgeos3.12.0 libpoppler145 python3-aardwolf python3-bitstruct python3-pywebview ruby-zeitwerk
Use 'sudo apt autoremove' to remove them.
Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 7
root@kali: ~
$
```

Una vez ya tengamos todo y el apache2 comenzamos con las configuraciones necesarias:

```
kali-linux-2025.1c-virtualbox-amd64 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
File Actions Edit View Help
root@kali: ~
root@kali: ~
$ cd ~/ssl
$ openssl req -newkey rsa:2048 -nodes -keyout mi_sitio.key -out mi_sitio.csr
cd: too many arguments
root@kali: ~
$ openssl req -newkey rsa:2048 -nodes -keyout mi_sitio.key -out mi_sitio.csr
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
Country Name (2 letter code) [AU]:
State or Province Name (full name) [Some-State]:
Locality Name (eg, city) []:
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:
Email Address []:
Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:kali
An optional company name []:
root@kali: ~
$
```

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Luego de establecer la configuracion del openssl utilizamos a2enmod:

```

kali-linux-2025.1c-virtualbox-amd64 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entradas Dispositivos Ayuda
1 2 3 4
root@kali: ~/ssl

File Actions Edit View Help

State or Province Name (full name) [Some-State]:
Locality Name (eg, city) []:
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:
Email Address []:

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:kali
An optional company name []:

root@kali) [~/ssl]
openssl x509 -req -days 365 -in mi_sitio.csr -signkey mi_sitio.key -out mi_sitio.crt
Certificate request self-signature ok
subject=C=AU, ST=Some-State, O=Internet Widgits Pty Ltd

root@kali) [~/ssl]
# sudo a2enmod ssl
sudo: a2enmod: command not found

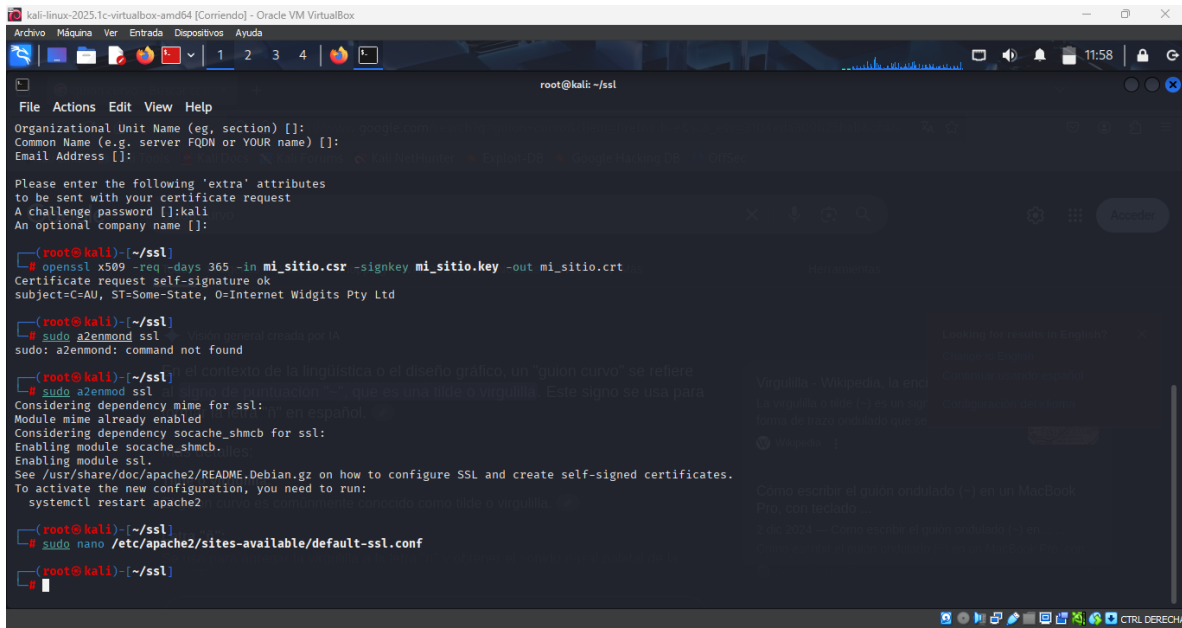
root@kali) [~/ssl]
# sudo a2enmod ssl
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create self-signed certificates.
To activate the new configuration, you need to run:
    systemctl restart apache2

root@kali) [~/ssl]

```

Donde luego nos indica las consideraciones de dependencias que debemos establecer nosotros:

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```
kali-linux-2025.1-c-virtualbox-amd64 [Comando] - Oracle VM VirtualBox
File Actions Edit View Help
Organizational Unit Name (eg, section) []:
Common Name (e.g. server FQDN or YOUR name) []:
Email Address []:

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:kali
An optional company name []:

[root@kali]-(~/ssl)
# openssl x509 -req -days 365 -in mi_sitio.csr -signkey mi_sitio.key -out mi_sitio.crt
Certificate request self-signature ok
subject=C=AU, ST=Some-State, O=Internet Widgits Pty Ltd

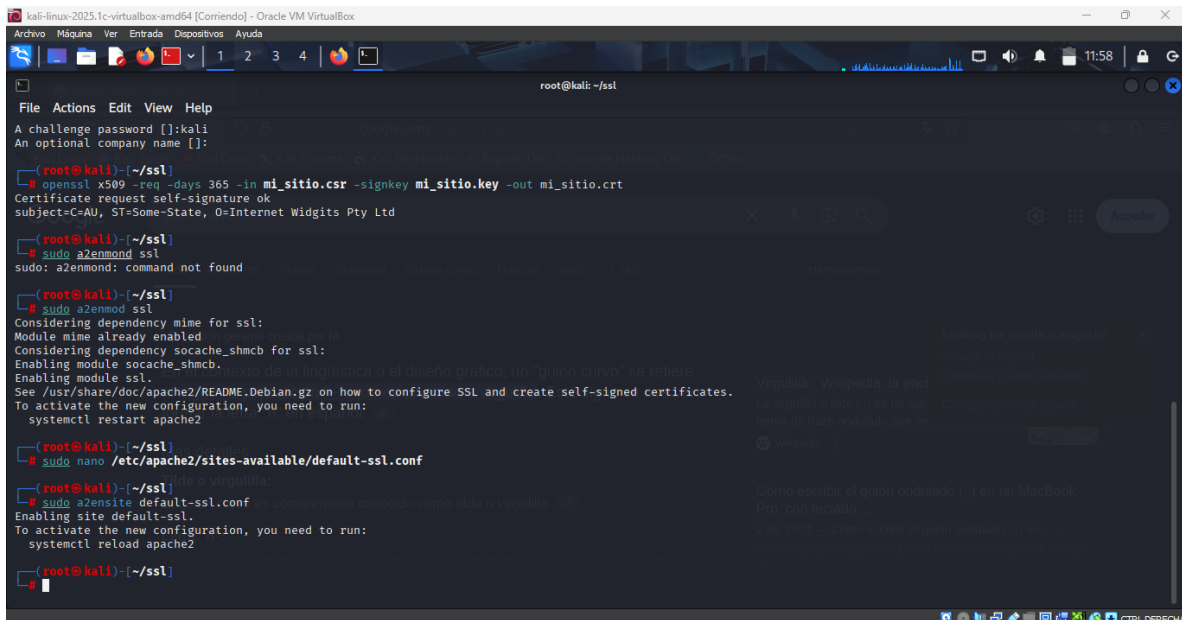
[root@kali]-(~/ssl)
# sudo a2enmod ssl
sudo: a2enmod: command not found

[root@kali]-(~/ssl)
# sudo a2enmod ssl
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create self-signed certificates.
To activate the new configuration, you need to run:
systemctl restart apache2

[root@kali]-(~/ssl)
# sudo nano /etc/apache2/sites-available/default-ssl.conf

[root@kali]-(~/ssl)
#
```

Creamos u editamos el archivo pro defecto de sitios disponibles default ssl:



```
kali-linux-2025.1-c-virtualbox-amd64 [Comando] - Oracle VM VirtualBox
File Actions Edit View Help
A challenge password []:kali
An optional company name []:

[root@kali]-(~/ssl)
# openssl x509 -req -days 365 -in mi_sitio.csr -signkey mi_sitio.key -out mi_sitio.crt
Certificate request self-signature ok
subject=C=AU, ST=Some-State, O=Internet Widgits Pty Ltd

[root@kali]-(~/ssl)
# sudo a2enmod ssl
sudo: a2enmod: command not found

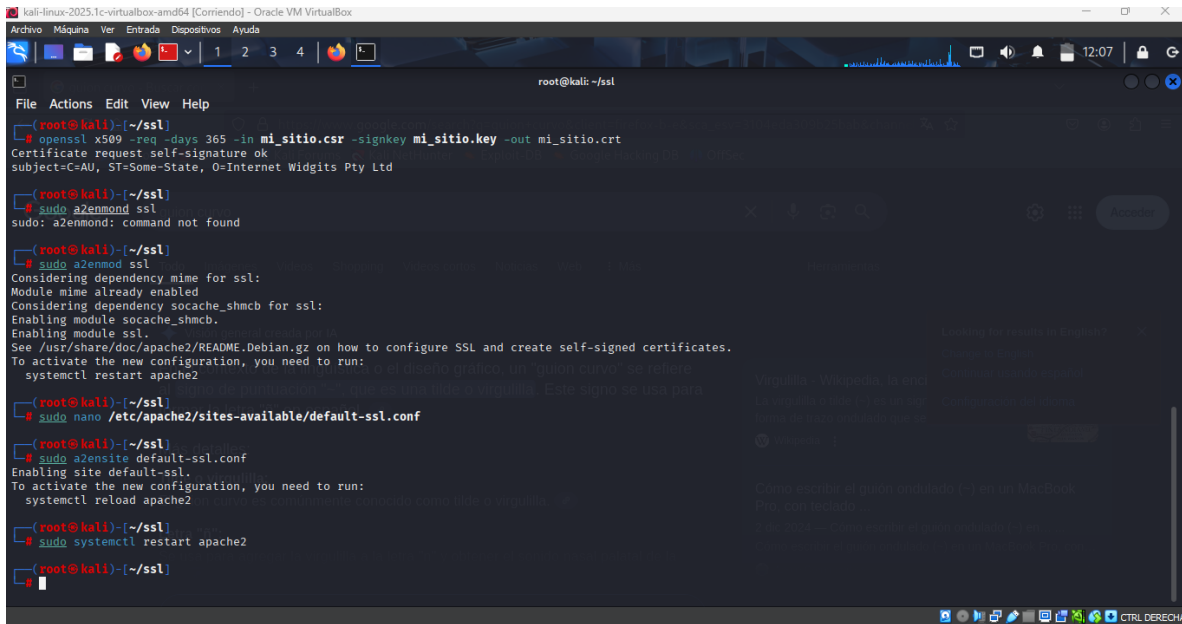
[root@kali]-(~/ssl)
# sudo a2enmod ssl
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create self-signed certificates.
To activate the new configuration, you need to run:
systemctl restart apache2

[root@kali]-(~/ssl)
# sudo nano /etc/apache2/sites-available/default-ssl.conf

[root@kali]-(~/ssl)
# sudo a2ensite default-ssl.conf
Enabling site default-ssl.
To activate the new configuration, you need to run:
systemctl reload apache2

[root@kali]-(~/ssl)
#
```

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```
root@kali: ~/ssl
# openssl x509 -req -days 365 -in mi_sitio.csr -signkey mi_sitio.key -out mi_sitio.crt
Certificate request self-signature ok
subject=C=AU, ST=Some-State, O=Internet Widgits Pty Ltd

root@kali: ~/ssl
# sudo a2enmod ssl
sudo: a2enmod: command not found

root@kali: ~/ssl
# sudo a2enmod ssl
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create self-signed certificates.
To activate the new configuration, you need to run:
systemctl restart apache2

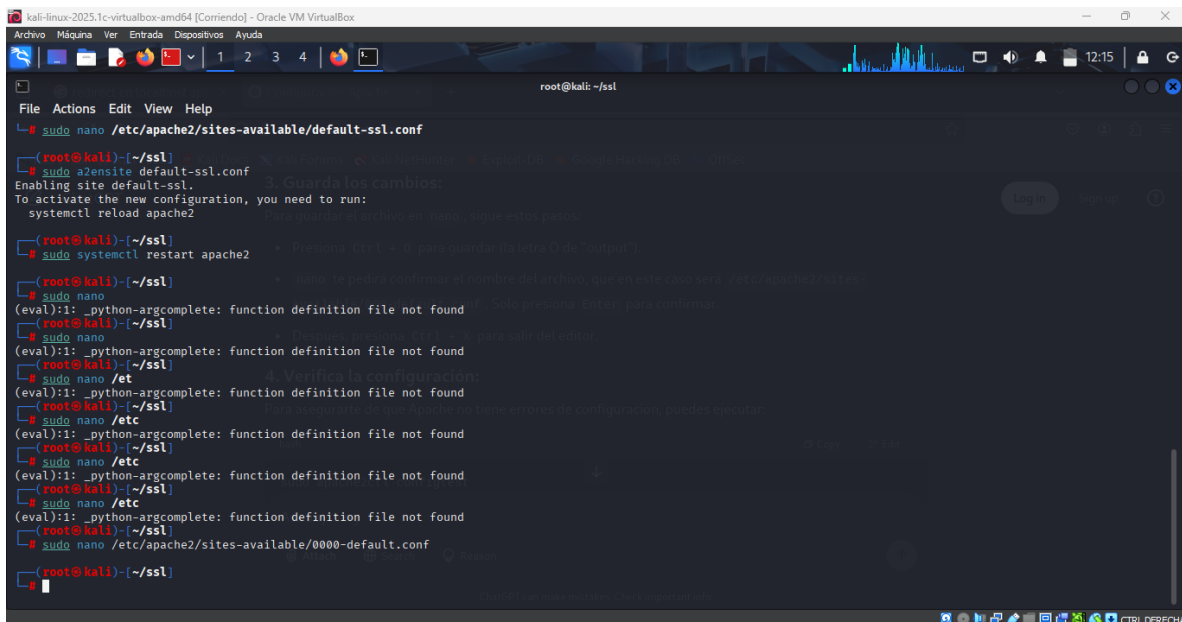
root@kali: ~/ssl
# sudo nano /etc/apache2/sites-available/default-ssl.conf

root@kali: ~/ssl
# sudo a2ensite default-ssl.conf
Enabling site default-ssl.
To activate the new configuration, you need to run:
systemctl reload apache2

root@kali: ~/ssl
# sudo systemctl restart apache2

root@kali: ~/ssl
```

Realizado todo el debido proceso comenzamos a reiniciar el apache2 y configurar el 000 default en nano.



```
root@kali: ~/ssl
# sudo nano /etc/apache2/sites-available/default-ssl.conf

root@kali: ~/ssl
# sudo a2ensite default-ssl.conf
Enabling site default-ssl.
To activate the new configuration, you need to run:
systemctl reload apache2

root@kali: ~/ssl
# sudo systemctl restart apache2

root@kali: ~/ssl
# sudo nano
(eval):i: _python-argcomplete: function definition file not found
root@kali: ~/ssl
# sudo nano
(eval):i: _python-argcomplete: function definition file not found
root@kali: ~/ssl
# sudo nano /et
(eval):i: _python-argcomplete: function definition file not found
root@kali: ~/ssl
# sudo nano /etc
(eval):i: _python-argcomplete: function definition file not found
root@kali: ~/ssl
# sudo nano /etc
(eval):i: _python-argcomplete: function definition file not found
root@kali: ~/ssl
# sudo nano /etc
(eval):i: _python-argcomplete: function definition file not found
root@kali: ~/ssl
# sudo nano /etc/apache2/sites-available/000-default.conf

root@kali: ~/ssl
```

Una vez configurado y de nuevo reiniciado podremos observar que en el default de localhost ya la pagina aparece en https, gracias al certificado ssl:

