Unix & Linux

Adding a self-signed certificate to the "trusted list"

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I've generated a self-signed certificate for my build server and I'd like to globally trust the certificate on my machine, as I created the key myself and I'm sick of seeing warnings.

I'm on Ubuntu 12.04. How can I take the certificate and globally trust it so that browsers (Google Chrome), CLI utilities (wget, curl), and programming languages (Python, Java, etc.) trust the connection to https://mysite.com without asking questions?

/ ssl

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asked Sep 12 '13 at 22:49

Naftuli Kay
11k ⬤ 51 ⬤ 147 ⬤ 240

> All the TLS should be vectored through OpenSSL, so that's the place to look for documentation. In this case: gagravarr.org/writing/openssl-certs/… looks useful. – msw Sep 13 '13 at 2:06 ✎

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4 Answers

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The simple answer to this is that pretty much each application will handle it differently.

Also OpenSSL and GNUTLS (the most widely used certificate processing libraries used to handle signed certificates) behave differently in their treatment of certs which also complicates the issue. Also operating systems utilize different mechanisms to utilize "root CA" used by most websites.

asked   4 years, 9 months ago

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V That aside, giving Debian as an example. Install the `ca-certificates` package:

```
apt-get install ca-certificates
```

You then copy the public half of your untrusted CA certificate (the one you use to sign your CSR) into the CA certificate directory (as root):

```
cp cacert.pem /usr/share/ca-certificates
```

And get it to rebuild the directory with your certificate included, run as root:

```
dpkg-reconfigure ca-certificates
```

and select the `ask` option, scroll to your certificate, mark it for inclusion and select ok.

Most browsers use their own CA database, and so tools like `certutil` have to be used to modify their contents (on Debian that is provided by the `libnss3-tools` package). For example, with Chrome you run something along the lines of:

```
certutil -d sql:$HOME/.pki/nssdb -A -t "C,," -n "My Homemade CA" -i /path/to/CA/cert.
```

Firefox will allow you to browse to the certificate on disk, recognize it a certificate file and then allow you to import it to Root CA list.

Most other commands such as `curl` take command line switches you can use to point at your CA,

```
curl --cacert  /path/to/CA/cert.file https://...
```

or drop the SSL validation altogether

```
curl --insecure https://...
```

The rest will need individual investigation if the `ca-certificates` like trick does not sort it for that particular application.

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answered Sep 14 '13 at 5:42

Drav Sloan

8,780 ● 2 ● 28 ● 37

Also, as noted here, adding CA certificates for Java is likewise a separate matter. – Naftuli Kay Mar 28 '14 at 0:40

1 After copying the certificate to /usr/share/ca-certificates, I can't see it in the `dpkg-reconfigure ca-certificates` list. What am I doing wrong? – Georges Dupéron Feb 17 '15 at 19:21

8 @GeorgesDupéron That happened to me to. I resolved it by renaming the cert from `whatever.pem` to `whatever.crt` . – Hello World Oct 3 '15 at 7:19 ✎

Fantastic, I'd already been paid half a day by the time I found this answer. Not sure I could have justified another half day and no work done ;) – Jamie Hutber Oct 17 '17 at 10:25

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Non Interactive Approach

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For use in a non-interactive context (e.g. a chef recipe) you can use the following sequence.

```
sudo cp my.crt /usr/local/share/ca-certificates/
sudo update-ca-certificates
```

- Tested and works on debian 5/6 & Ubuntu 14.04.

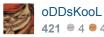- For more information, see `man update-ca-certificates`

This method is preferred over @Drav's method, since `/usr/share/` is typically reserved for files added by the OS / `apt-get` .

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edited Dec 9 '16 at 23:37
BobTuckerman
103 ● 3

answered May 27 '14 at 9:07
oDDsKooL
421 ● 4 ● 4

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3 It is better to copy the files to `/usr/local/share/ca-certificates/` as mentioned in the man pages – ortang Feb 4 '16 at 10:20

FYI the A must be a `.crt` , I found `.cert` claimed it was added but did not help – KCD Dec 13 '16 at

3:53

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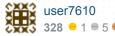On Fedora 23, add the .pem or .der file to `/etc/pki/ca-trust/source/anchors/` and run `sudo update-ca-trust extract` .

See `man update-ca-trust` for details, e.g. whether to use /etc or /usr.

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answered Mar 20 '16 at 16:43

user7610
328 ● 1 ● 5 ● 17

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In centos:

```
cp *.pem /etc/pki/ca-trust/source/anchors/
update-ca-trust extract
```

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answered Apr 19 at 10:58

dragonfly
1 ● 1

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