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Stuff that matters to Wayne

How to Make Self Signed SSL Certificate Work in CPanel

Posted on March 25,2016 by admin

Tutorial Assumptions

- you have a website domain
- you have shared hosting using cPanel
- you are using a computer running Ubuntu

This isn't a perfect solution if you have a public facing website, but if you have a private website for yourself, your friends, your business, etc, this will be 'better than nothing' and at least give you encryption for your traffic. Most hosting companies probably sell 'real' SSL certificates which cost a certain amount per year. This may make sense if you don't have time to figure it out, or you don't have root control of your server, or if your server happens to suck and not be ubuntu. If these things happen, you should consider a hosting change ASAP because someone else is controlling your website. In my case, I'm financially challenged right now and I have a couple of personal domains I want to secure. Note that I have not yet, as of the date of posting this, figured out what to do for W.O.T. It is still showing 'not secure' because it's not https but I don't want to use a self-signed certificate because it will scare away most visitors before they start reading. The best looking solution moving forward, by the way, and I'm trying to plan all my future sites around it is [Let's Encrypt](#) which is supported by some major players but also [playing ball with the EFF](#) it looks like. However, if you don't have control over your terminal on your server and cannot issue commands, I'm not sure that it will work. I'm still investigating. This tutorial is using Greengeeks cheap shared hosting out of the USA. I remember having to contacts tech support to making this option available in cpanel so you might have to as well Download and Install OpenSSL on your Ubuntu machine

I assume it would be this command although it has been a while. might have to search it out if this doesn't work: `sudo apt-get install openssl`

Navigate to a Nice Place with your Terminal and Create a Directory Where Your Certificates will be Stored

I gave these a file name of domain-name-ssl-certs, and I did it in my home directory for speed and ease `sudo mkdir domain-name-ssl-certs`

Run the Command to Generate the Certificates

You will need to swap out the directory path in this command to the one that matches where you just created the above directory `sudo openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout /directory/directory/domain-name-ssl-certs/apache.key -out /directory/directory/domain-name-ssl-certs/apache.crt` It will ask you to fill out stuff and the most important is this one which links it to your actual domain:

Common Name (e.g. server FQDN or YOUR name) []:example.com

Go to Cpanel back end and prepare to paste in some stuff where it should go

If you don't see the stuff I'm talking about in this section it may be because your hosting company doesn't want you to know you can do this because they want to sell you a \$20 to \$50/year 'real

certificate'. But if you are doing home-based stuff you need not spend. Make them make this function work or move to a company who will. In my cpanel it's under 'security' and 'SSL/TLS'. Click that.

Install and Manage SSL for your site (HTTPS)

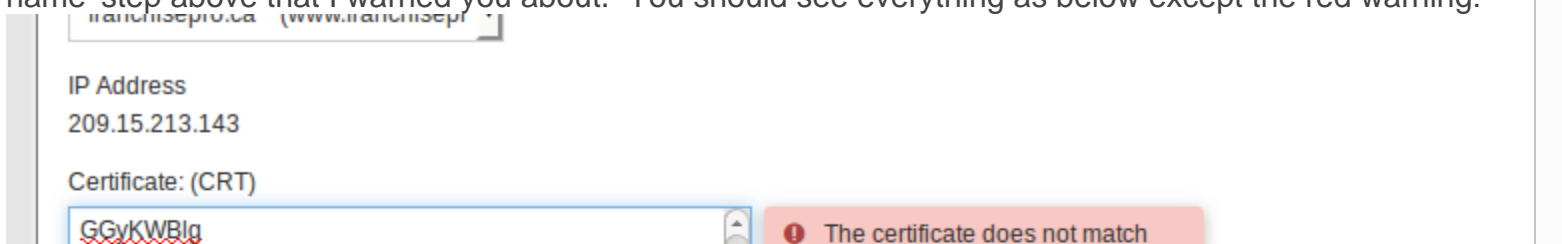
Go back to your terminal and open those .key and .crt files with a text editor like nano or gedit

sudo nano apache.crt Select all the text after the --- of 'begin cert' and before the --- of 'end certificate' as follows.

```
GNU nano 2.2.6 File: apache.crt
-----BEGIN CERTIFICATE-----
MIID1zCCAr+gAwIBAgIJAMofkXNB2ZUAMA0GCSqGSIb3DQEBCwUAMIGBMQswCQYD
VQQGEwJDQTELMAGKA1UECAwCQkMxDjAMBgNVBACMBURFTFRBMQwwCgYDVQQKDANX
I1QxEjAQBgNVBAsMCVdPVFRJQ0xUFzEPMA0GA1UEAwwGV0FZTKVSMsIwIAIJKoZI
hvcNAQkBFhNXQVlORUBUQVlMT1JNQUlMLkNBMB4XDTE2MDMyNTE1MzA10VoXDTE3
MDMyNTE1MzA10VowgYExCzAJBgNVBAYTAkNBMBQswCQYDVQQIDAJCQzEOMAwGA1UE
BwwFREVMVEExDDAKBgNVBAoMA1dPVDESMBAGA1UECwwJV090UVElDTEVMTQ8wDQYD
VQQDDAZXQVlORVixIjAgBgkqhkiG9w0BCQEWIEdBU5FQFRBWUXPuk1BSUwuQ0Ew
ggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQCowe6HBiR+xMrZX8h2s267
gFxKULzKow/WU+thzr+LFtsCMD67T9QKj8iB/R9brM05ZM/yaQaKAe2NkaORuMj0
vhEuzNov3iWhZ00bAdgakJg+BXyaab/FD5sIASrrY1LzAxTkB6dfPnGhpDfZ8X3E
bf5eul47AeVvPCUGPqrLxpt3Q2BYyaNlZKThHSUF7TzCJMeo5CpvNI9Wgn9hRnA4
AkOnDCL3/7/fTEZAHhjOnlzwMkVqbi8Ek3oN0EuhpG/H0zGGVh/XHHyfPnWRUuog
NGtlye20MMV3LgmNEUtezJsqMUnBUuRtCtNXqC3qrz7R/L1w7P88GB+V+J5AHvV
AgMBAAGjUDBOMB0GA1UdDgQWBRRG0TxVffs7J+xHyNZK+c2t24Zn9zAfBgNVHSME
GDAWgBRG0TxVffs7J+xHyNZK+c2t24Zn9zAMBgNVHRMEBTADAQH/MA0GCSqGSIb3
DQEBCwUAA4IBAQBdCBWS302zBdup10EMQ2btsSLANGW9anWtYFY4KQ07QP1v2dos
Q6/3pkfKfHryL/Jyhq+cX+Nd7Ex+Gchm+AjGgLPNgMUeNmqrPCGFNJHIGGyKWBlg
7ZrftDJ0KvSxvrmlvu8CxujekdAzpkWJEtC9zjZRmMpaQ3gL6NNN6H/gRjJZkyy8
HRJ6Fck2ssjvAlqyW0qOYCOrGMuIEzG5BTqG98LFF1l8EL0kYLSredkjpJXUAb2
rA6nvzuZey+vhm1/c0LLA7YHzW0aCGG95uL5SicGrewL9CmnamaGooD2uEntEOF
VKL5RmuBSy4L2340t02Jcikw3beyC3uXuHsv
-----END CERTIFICATE-----

^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is  ^V Next Page  ^U UnCut Text ^T To Spell
```

with the control and shift button down hit the 'c' button to copy it to the clipboard memory. Go back to your cPanel and paste it in the certificate field. If you get a warning that it doesn't match your domain it's because you didn't enter the domain correctly while you were creating the certificate in the 'Common name' step above that I warned you about. You should see everything as below except the red warning:



Open your Private Key that you generated and Copy/Paste it into your Cpanel sudo nano apache.key

```
GNU nano 2.2.6 File: apache.key
-----BEGIN PRIVATE KEY-----
MIIEvgIBADANBgkqhkiG9w0BAQEFAASCBKggggSkAgEAAoIBAQCowe6HBiR+xMrZ
X8h2s267gFxKULzKoW/WU+tHzr+LFtsCMD67T9QKj8iB/R9brM05ZM/yaQaKAe2N
kaORuMj0vhEuzNov3iWhZ00bAdgakJg+BXYaab/FD5sIASrrY1LzAxTkB6dfPnGh
pDfZ8X3Ebf5eul47AeVvPCUGPQrLxpt3Q2BYaNLZKThHSUF7TzCJMeo5CpvNI9W
Gn9hRnA4AkOnDCL3/7/fTEZAHhjOnLzwmKvqbi8Ek3oN0EuhpG/HOzGGVh/XHHyf
PnWRUUogNGtlye20MMV3LgmNEUtezJsqMunBUuRCTCtNXqC3qrz7R/L1w7P88GB+
V+J5AHvVAgMBAAECggEAXmwsBxaTwu5fRWMHagsZkQXQHbGZw7KyPay0v3fZynwe
TEsVAZ832DT9DmZPbl7rIEdc5piHFR7hCM4NRFKs9euG97Wc+x2D1pxTEyJkBPEU
jddGbp7ustb5enD9ktj/J4N44+G4b10j/TpCGcq6APc+VUHxwxJbinKPkL8E1GDC
IVKbvDYDescM7W+/aXdQwJ4zov16+Cq7/HdS/rIFLqdjW48Ey/TnDG7C0fr4ofhe
sUXD5gPoCNRqVXn4TZLHqMMJm9edBzRIA1KU265RlrIMMLsocf/TOEmkVS8D12E
EQ6vVBRINydfQGwc7bdZ/YtWm+Vb6C2/b5H9SHwAHQKBgQDUwjWDckX+NNFfQpUf
4aCGmRQPFIFc6zMI1XbKGH5x/iTQjYoF/8nPbw3rGuCXqmVMLZ095WjQriAdpQS
3wOFG+Mu5rYTjTGkol2ogedjyUy4sFkrUeWoi5It0+e7kf42UbflcCiR+wadc74p
t1LlvqKPbojyd7d/l7PDQK5rdwKBgQDLdlrPqj7s09G0CmceMIFHn/HI5pc/Rco+
7ZTnh3Px9kgG9WJUN0tZpToAhabS0Tyg2e8QuBdR0La8sFQqWo2cgzXCnzsJCDUJ
c/+X3TQKXqr/irJonWn0w6wWPOC46aKhtIkqxW+TFybnLZ/JA0JnLDBLzcwmwrIS
JTSIXsIOEwKBgQC5D3iWrlY9aFnZv00RKKOFkC9HcrGXTink/DBIV4fcxY/mK8cr
srMqkFGN96H1qkxUN6yz15EV0vBKeSsT0xHvvTmd/6XOWdkG2nYW9W98d4MzfqMB
MEpQEZ8D57dAixuQygho02e+mpfFawC0rnYXynsBwcazCPj+rci6BE/yvwKBgBSl
uQY0wYEz8/MFi8a+F+c4LFVhXS/J407VKbcBRwDrkhjdESTvPq4mLVDQdtOhq00
hWkL1Xkk0zAMngJQguXPUcAggNhCRWJYsTy3+Xq0dZ7Wc52/o+6HlxAL0K3809St
juUSfm3uhL4tHXpLlo1rKN4MZx3p3kGKFvVm7USRAoGBAIM21YiO8vdfYsymvqRO
yXFfNSEGLgl3lOqGyYj3EEcXwDslnUs8BhuDI8FOtdGepMUIh4XM9XVLLHhDQSI
dLaJzGK+ZF2HiMt0APIKa4DBZiTi4j9YkRS91w5lvsRVc/TyP3HktRuWitSCbsd
ciM2wxmcNuuZjXcQfj4P53UB
-----END PRIVATE KEY-----

[ Read 28 lines ]
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

control+shift+C it into this window in cPanel

Key Size: 2,048 bits (a8c1ee87 ...)

Expiration: Mar 25, 2017 3:31:00 PM

The certificate may already be on your server. You can either paste the certificate here or try to retrieve

Private Key (KEY)

```
hWKl1Xkk0zAMngJQguXPUcAggNhCRWJYsTy3+Xq0dZ
7Wc52/o+6HlxAL0K3809St
juUSfm3uhL4tHXpLlo1rKN4MZx3p3kGKFvVm7USRAoG
BAIM21YiO8vdfYsymvqRO
yXFfNSEGLgl3lOqGyYj3EEcXwDslnUs8BhuDI8FOtdGep
MUIh4XM9XVLLHhDQSI
dLaJzGK+ZF2HiMt0APIKa4DBZiTi4j9YkRS91w5lvsRVc
/TyP3HktRuWitSCbsd
ciM2wxmcNuuZjXcQfj4P53UB
-----END PRIVATE KEY-----
```

good to go. Of course you will always get the 'this website is dangerous' warning the first time you visit it but whatever. Hope that helps. Now to try the same method with 'let's encrypt' and hopefully get rid of the 'dangerous' warnings, too!

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