

# Machine Certificates

You should have your own machine certificate, but if not you can create a self-generated certificate.

To create a self-generated certificate:

- Start Powershell with administrator privileges
- Navigate to the Certs folder which is contained in the main folder of the software
- Type the following into Powershell: `.\MakeCerts.ps1`

Enter a password (the same one) for each prompt. When finished it will open a notepad with the certificate encoded value and thumbprint. You can replace the blank entries in **setup.ini** with these lines under the '[setup]' section.

**If you are using an existing certificate (and not generating a new one as shown above), follow these directions:**

To get the certificate encoded value and thumbprint from a machine certificate (self generated or not), open the MMC snap-in and select "Certificates" for the local computer. Under Certificates (Local Computer)/Personal/Certificates there should be your machine certificate. Right click that and select All Tasks | Export (don't export private key) and then export the file as Base 64. Open that file up in an advanced text editor like Notepad++ and delete the certificate header and footer. Next remove the CRLF (`\r\n`) characters to get the certificate encoded value on one line. Put this string after `WCERT_encodedvalue=` to get something like:

```
WCERT_encodedvalue=MIIICGCCAYGgAwIBAgIQgCe9inI+txBm5h4Y4QnSzANBgkqhkiG9w0BAQQFADAiMSAwHgYDVQ  
QDExdXSU4tNkxBMIFRT1RVNzcgUm9vdCBDQTAeFw0xODEwMjM0MDNaFw0zOTEyMzEyMzU5NTIaMBoxGDAWBgN  
VBAMTD1dJTI0TEEyUVFPVFU3NzCBnzANBgkqhkiG9w0BAQEFAAOBjQAwgYKCYEAuD6wnh1a5/jhvQZUJ9OKGI+cPt4Xo  
F9TDDKrNKEwMDmYB+/6t/GMj77qqhDIInxmIXHTCQXz30FJ4byZ2hViaPKaXoiiQQbpNwc4+8o8lkyj92sNzPXHL5+ptOliYV/  
TBzllqdGmEeUC8CjjA8KNgKy/1KqyrBG/45buwYOF5cCAwEAAaNXMFUwUwYDVR0BBEwwSoAQB2rcGLun/90RS8i1Keh3A  
qEkMCixIDAeBgNVBAMTF1dJTI0TEEyUVFPVFU3NzBSb290IENBghBnEgi+2pZLrU0y9qK7Gyi0MA0GCSqGSIb3DQEBAU  
AA4GBAKGMScro0G9EM901ly7QFnVZmEw9a8afabLgNQsoAiUk8j2b/0/HtPE0rldBWOU6ojfq0ABh5FFMV4MOP6eXA/bF7/Ij  
3m9akDoID7ZFWAvdmzmtgsABjN9znpfavY1cyYOJqHrrmYb7xFExiLRiy6ftsgb4VYDqiTSdN7XTmL2s
```

Next, double click the certificate in the snap-in to open the certificate properties. Click on the Details tab and find the thumbprint value. Copy that to the clipboard and paste into your text editor. Remove the spaces in between the characters.

**GOTCHA ALERT** Sometimes there is "hidden" character before the first value of the thumbprint. The safest way to get rid of this is put your cursor just after the first character and press backspace several times which will delete the first character and any hidden ones. Manually type in the first value to fix the thumbprint.

Put this entire value after `WCERT_THUMBPRINT=` to get something like:

```
WCERT_THUMBPRINT=4aaf0a5f6cdfa3f5fd46bb4397cf971b269b70bc
```

Take both of these values and replace the blank entries in **setup.ini** under the '[setup]' section.

Next: [Configure the setup.ini](#)

Previous: [Setting up IIS on Windows Server 2016](#)