



HOW TO INSTALL CERTIFICATES IN MAC OS

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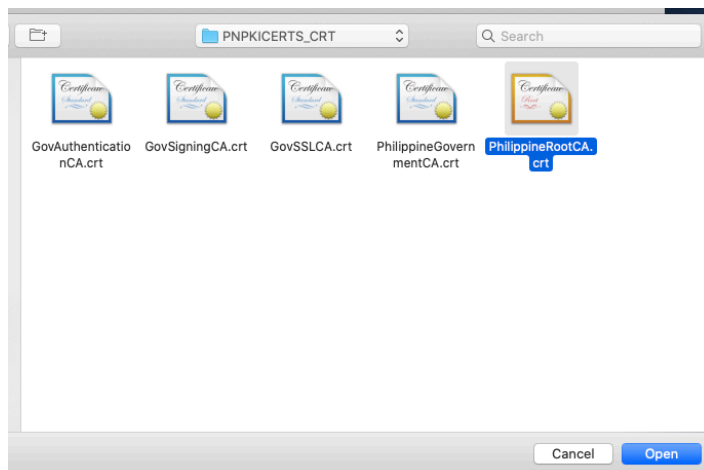
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INSTALLING PNPKI CERTIFICATE CHAIN OF TRUST

1. Download and install the PNPKI CA certificates, also called the **PNPKI Certificate Chain of Trust**, found in <https://dict.gov.ph/certificate-authority-ca-certificates/>
2. Unzip the downloaded file.
3. Install your certificate.

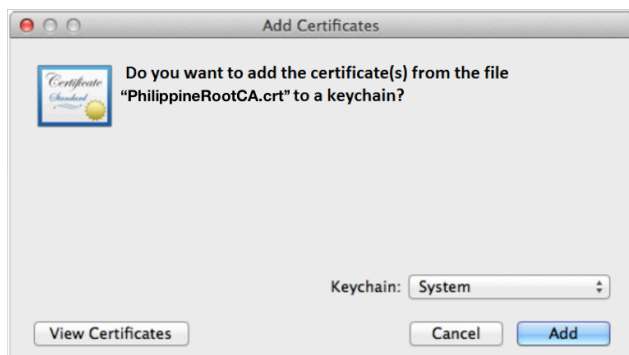
METHOD 1:

- a. Double-click PhilippineRootCA.crt (or PhilippineRootCA.pem) file to install.

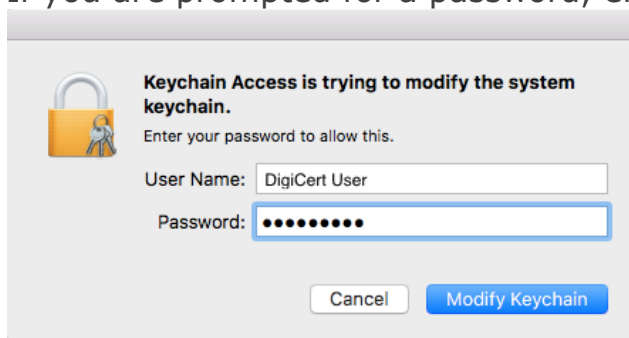




- b. If a pop-up window appears, for the Keychain, select *System*, then click *Add*.



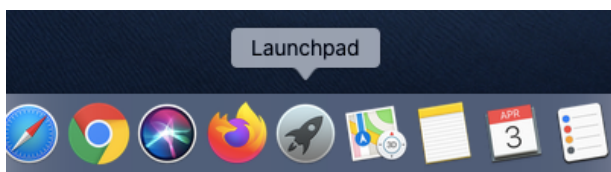
- c. If you are prompted for a password, enter your MacOS password



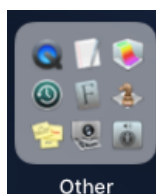
If successful (no errors), you may proceed to **step 4**. **If you encounter an error**, follow these steps (**Method 2**) instead:

METHOD 2:

- a. Open **Keychain Access** by searching it in Spotlight or ff. these steps:
- Go to **Launchpad**

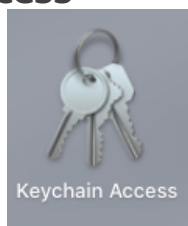


- In the Launchpad, select **Other**

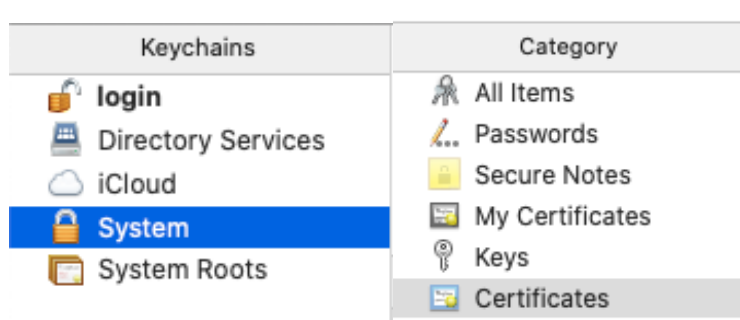




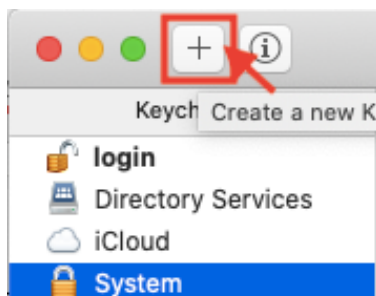
iii. Select **Keychain Access**



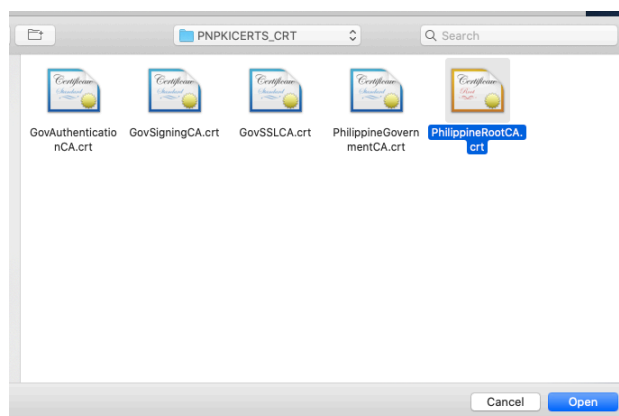
b. Under the **Keychains** list, select **System**. And under the **Category**, select **Certificates**.



c. To add a certificate, click the **+** button.



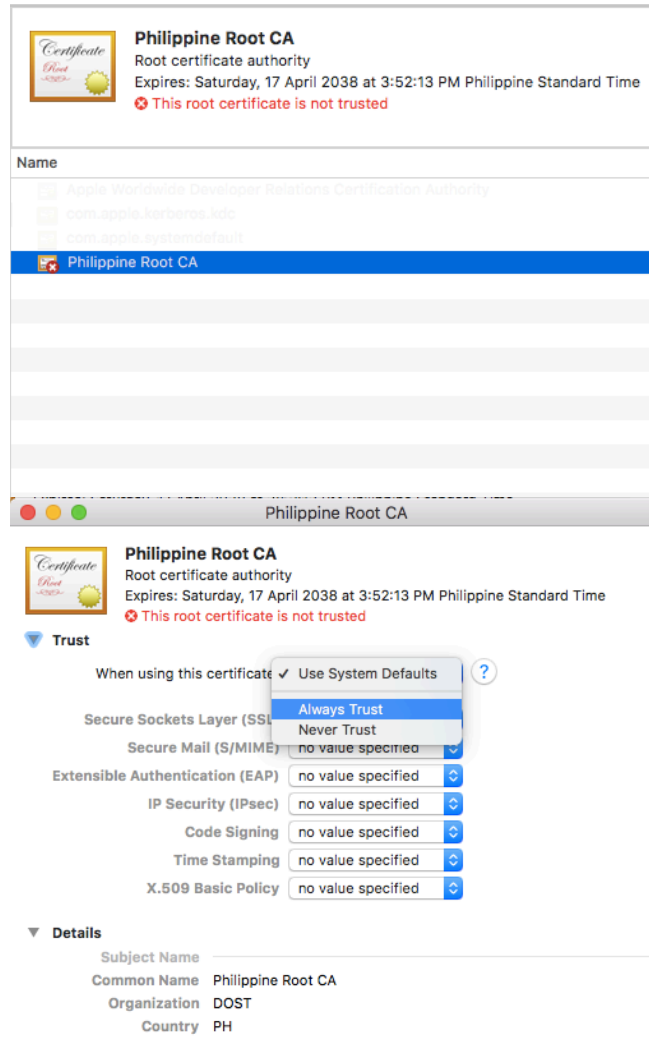
d. Locate the certificate files you have downloaded and unzipped.



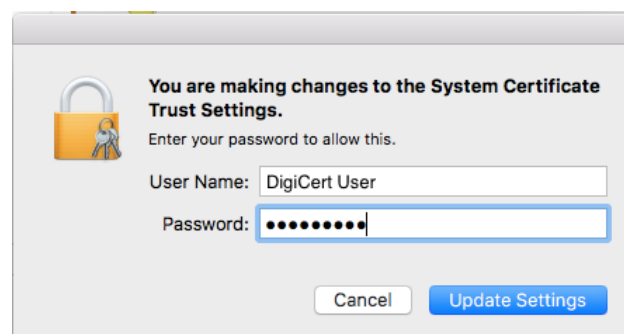
e. Select **Philippine RootCA.crt** then click **Open**.



4. In the **Keychain Access**, you will notice a red warning that the root certificate is not trusted. Double-click the certificate. In the **Trust** dropdown, select **Always Trust** from the options of **When using this certificate**.



5. You will be prompted with your computer password. Enter your computer password and click on **Update Settings**.



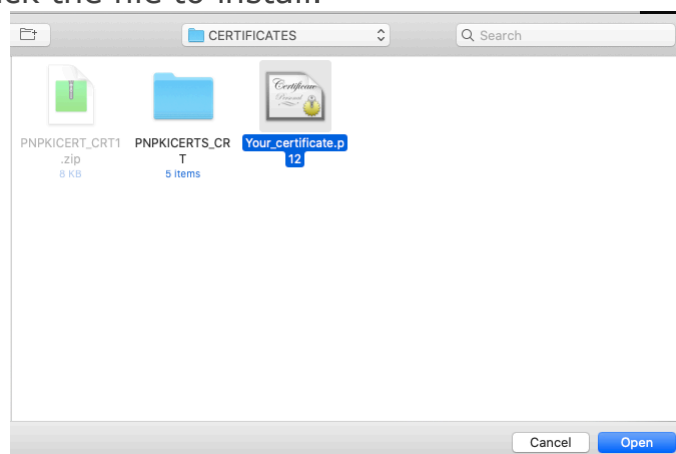


6. Repeat steps **5-7** for the rest of the certificate files:
 - PhilippineGovernmentCA.crt
 - GovAuthenticationCA.crt
 - GovSigningCA.crt
 - GovSSL.crt

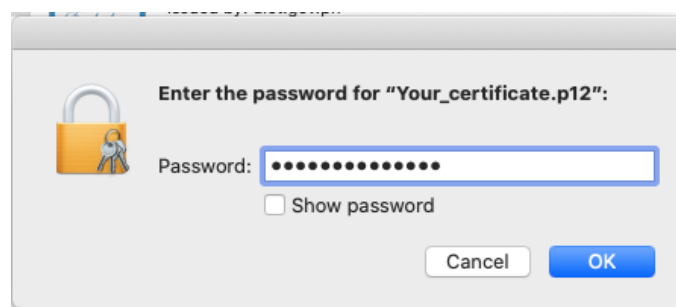
INSTALLING YOUR DIGITAL CERTIFICATE

METHOD 1:

1. Go to the directory where you saved your certificate. The file icon should look like a certificate. If not or if the file is missing the “.p12” extension, rename the file and append “.p12” to the file name.
2. Double-click the file to install.



3. Enter your certificate backup password.

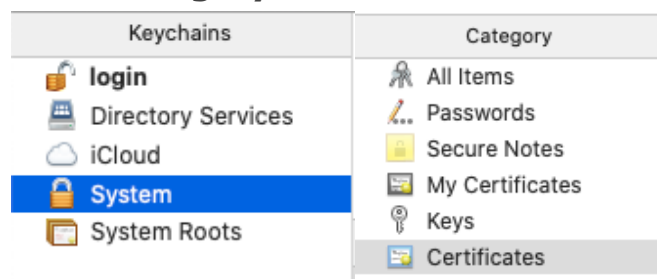


If you encounter an error, follow [Method 2](#) instead.

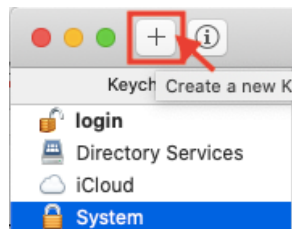


METHOD 2:

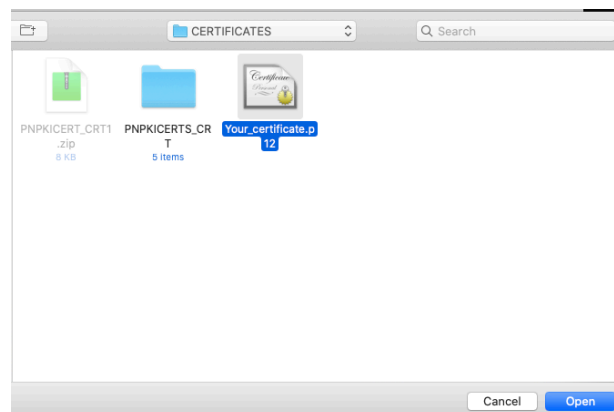
1. In the **Keychain Access**, select **System** under **Keychains**, and **Certificates** under **Category**.



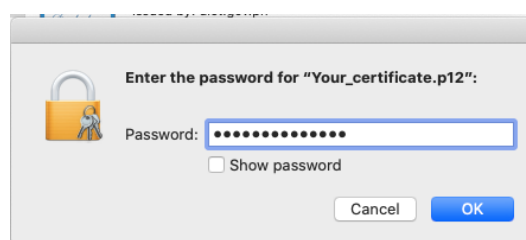
2. To add a certificate, click the **+** button.



3. Locate your digital certificate file. The file icon should look like a certificate. If not or if the file is missing the ".p12" extension, rename the file and append ".p12" to the file name.



4. Enter your certificate backup password.





You may now use your certificate in the appropriate Mac applications.

Manuals on digital signing can be accessed through the ff. links:

- [Digitally Signing PDF with Adobe Reader](#)
- [How to Add a Timestamp with Adobe Reader](#)
- [Digitally Signing PDF with Foxit Reader](#)
- [How to Add a Timestamp with Foxit](#)
- [Digitally Signing PDF with DigiSigner \(Windows installer\)](#)
- [How to Add a Timestamp with DigiSigner](#)

Manuals on email signing and encryption can be accessed through the ff. links:

- [How to digitally sign and encrypt emails using Thunderbird](#)
- [How to encrypt email using Microsoft Outlook 2016](#)



Revision History

Version	Date Created / Revised	Remarks
1.0	24 Sep 2018	Initial release
2.0	03 Apr 2020	Revised installation steps to address errors encountered in Mac OS
2.1	04 May 2020	<ul style="list-style-type: none">• Included both both methods in version 1.0 and 2.0 for installing certificates• Added missing step (add .p12 extension to filename)