

# Installing Certificates Java and .Net

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### **External Wildcard Certificate**

- The first working session with PJM SME's was held Sept. 26. The standard process for adding the certificate was reviewed and questions were answered.
- The Oct. 23 session is intended for application developers and other IT personnel who will be performing the certificate work.
- The certificates will be replaced in train and production environment on the below dates.
  - Train November 19, 2024
  - Production December 3, 2024



**Registration/Audience** 

- The intermediate/root certificates are available now. Please work with your IT or application team to have it **appended** to the existing certificates in the SSL Trust store. The current certificates should **not** be replaced at this time.
  - Root:

https://www.digicert.com/kb/digicert-root-certificates.htm#roots

– Intermediate:

https://www.digicert.com/kb/digicert-rootcertificates.htm#intermediates



### External Wildcard Certificate Roadmap

	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Working Sessions									ep 26	Oct 23		
Certificate Replacement											<ul><li>Train:</li><li>Nov. 19</li></ul>	Prod: Dec. 3





- <u>Download</u> the new DigiCert Intermediate Certificate
- Save the file with the name intermediate.pem. Make a note of the location of the file for future reference. For example, c:\windows\temp

- Next, <u>download</u> the root certificate
- Save the file with the name root.pem. Make a note of the location of the file for future reference. For example, c:\windows\temp



Installing GeoTrust Certificates for Java Applications and Utilities

To import the certificate files for Java applications and utilities, find where Java is installed.

- If you already know where Java is installed, you can ignore the next steps and skip to step 2.
- On a Unix system, you can run one of these commands "which java", "echo \$JAVA\_HOME" or "locate java".
- On a Windows system, you can run the "echo %JAVA\_HOME%" command.
- For either of these, make a note of the path to the Java installation.



### Installing GeoTrust Certificates for Java Applications and Utilities

Once you have the path to the Java installation, run the following commands to install the certificates:

- cd <path\_to\_java\_from\_step\_1>
- cd bin
- keytool -import -alias GeoTrustTLSRSACAG1 -trustcacerts -file <path\_to\_intermediate.pem> keystore <path\_to\_java\_from\_step\_1>\jre\lib\security\cacerts

Note: for unix systems you may need to execute this as ./keytool

keytool -import -alias DigiCertGlobalRootG2 -trustcacerts -file <path\_to\_root.pem> -keystore
 <path\_to\_java\_from\_step\_1>\jre\lib\security\cacerts

Note: For both of these commands, you will be prompted to enter the keystore password: enter your configured keystore password (the default is 'changeit')

Note: If you see an error "already exists," this means you already have the certificates, and can skip that



To import the certificate files for .NET applications:

• Click Start, click Run, type certmgr.msc, and then click OK.

Note: You may need administrative permissions to open certificate manager in Microsoft Management Console snap-in.



Expand Certificates (local computer), expand Trusted Root Certification Authorities and then click **Certificates**:



**A**pjm

### Installing DigiCert Certificates for .NET Applications

#### Confirm the intermediate certificate is not already listed – DigiCert SHA2

🖀 certmgr - [Certificates - Current User\Intermediate Certifica	tion Authorities\Certificates]	- □ >
File Action View Help		
🗢 🔿   🚈 💼   🔏 🖦   🔀 📾   🔟 📷		
<ul> <li>Certificates - Current User</li> <li>Personal</li> <li>Trusted Root Certification Authorities</li> <li>Enterprise Trust</li> <li>Intermediate Certification Authorities</li> <li>Certificates</li> <li>Certificates</li> <li>Certificates</li> <li>Certificates</li> <li>Certificate Revocation List</li> <li>Certificates</li> <li>Certificates</li> <li>Certificate Trust User Object</li> <li>Trusted Publishers</li> <li>Untrusted Certification Authorities</li> <li>Certificate Trust List</li> <li>Certificates</li> <li>Certificates</li> <li>Certificates</li> <li>Certificates</li> <li>Other People</li> <li>AdobeCertStore</li> <li>ISG Trust</li> </ul>	Issued To COMODO RSA Code Signing CA DigiCert SHA2 Secure Server CA DigiCert Trusted G4 Code Signing RSA4096 SHA384 2021 EUS-STM-KEYID-FB17D70D734870E919C4E8E603975E664E Microsoft Azure RSA TLS Issuing CA 03 Microsoft Azure RSA TLS Issuing CA 04 Microsoft Azure RSA TLS Issuing CA 04 Microsoft Azure RSA TLS Issuing CA 08 Microsoft TPM Root Certificate Authority 2014 Microsoft Windows Hardware Compatibility PIM Issuing CA v2 PIM Root CA 2023 PIM Root CA v2 PIM Windows Issuing CA PIM Windows Issuing CA	Issued By COMODO RSA Certification Auth DigiCert Global Root CA DigiCert Trusted Root G4 Microsoft TPM Root Certificate A DigiCert Global Root G2 DigiCert Global Root G2 DigiCert Global Root G2 Microsoft TPM Root Certificate A Microsoft Root Authority PJM Root CA v2 PJM Root CA v2
Local NonRemovable Certificates      Certificate Irust      Certificate Enrollment Requests      Smart Card Trusted Roots	PJM Windows Issuing CA 2023     pjm_issuing_ca_2023     RapidSSL TLS RSA CA G1     Root Agency     Summarkan CA	PJM Root CA 2023 PJM Root CA 2023 DigiCert Global Root G2 Root Agency
	<	Vensign Class 5 Public Primary Ce.

Intermediate Certification Authorities store contains 24 certificates.



If not listed, expand certificates (local computer), expand Intermediate Certification Authorities right- click Certificates, click All Tasks, and then click Import.

Import the intermediate certificate.

In the Certificate Import Wizard dialog box, figure 5, click Next.





In the **File name** box, give the path of the intermediate certificate authority file downloaded in the first section of this document. For example, c:\windows\temp\intermediate.pem

Certificate Import Wizard	X
File to Import Specify the file you want to import.	
File name:	]
Note: More than one certificate can be stored in a single file in the following forma	ts:
Personal Information Exchange- PKCS #12 (.PFX,.P12) Cryptographic Message Syntax Standard- PKCS #7 Certificates (.P7B)	
Microsoft Serialized Certificate Store (.SST)	
Learn more about <u>certificate file formats</u>	
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- Click **Next** two times.
- Click **Finish**, and then click **OK**. You should see a message appear 'The import was successful'.



- Import the Root Certificate
- Expand Certificates (local computer), expand Trusted Root Certification Authorities, and then click Certificates.
  - In the right pane, confirm that the certificate for 'DigiCert Global Root CA' is not listed.
  - If not listed, **import** the root certificate.
  - Expand Certificates (local computer), right-click Trusted Root Certification Authorities, click All Tasks, and then click Import.



- Import the root certificate
- In the Certificate Import Wizard dialog box, click Next.

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In the **File name** box, give the path of the root certificate authority file downloaded in the first section of this document. For example, c:\windows\temp\root.pem

ertificate Import Wizard
File to Import Specify the file you want to import.
File name:
Note: More than one certificate can be stored in a single file in the following formats: Personal Information Exchange- PKCS #12 (.PFX,.P12)
Cryptographic Message Syntax Standard- PKCS #7 Certificates (.P7B) Microsoft Serialized Certificate Store (.SST)
Learn more about <u>certificate file formats</u>
< Back Next > Cancel



- Click **Next** two times.
- Click **Finish**, and then click **OK**. You should see a message appear 'The import was successful'.