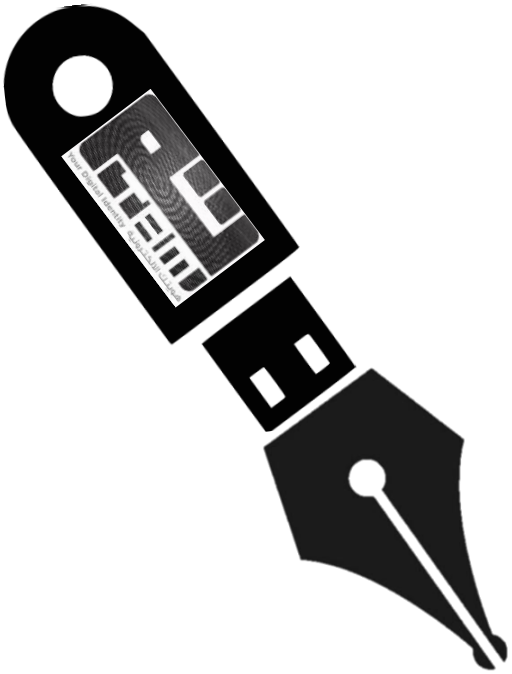


User Guide For PKI Token

Oman National PKI

Version 2.0

May 2023

سلطنة عُمان
وزارة النقل والاتصالات وتقنية المعلومات
Sultanate of Oman
Ministry of Transport, Communications and Information Technology

العاصمة العربية الرقمية
Muscat Arab Digital Capital
2022

رؤية عُمان 2040
Moving Forward with Confidence

Contents

1. Document terminology

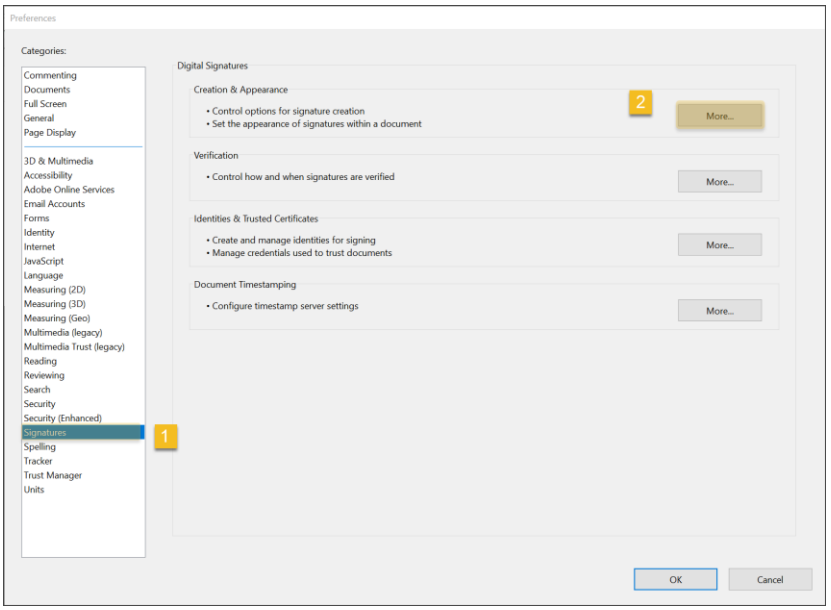
MTCIT	Ministry of Transport, Communications and Information Technology
PKI	Public key infrastructure
OCSP	Online certificate status protocol
CRL	Certificate revocation list
CA	Certificate Authority
TSA	Time Stamp Authority

2. Recommended Acrobat configuration to perform digital signature according to the best practices:

2.1 First Step is to configure Adobe Reader DC as explained below:

- Procedures are based on the 2020.009 versions of Adobe Reader DC. While previous versions are similar, the procedures are not identical. For instructions involving older product versions, see the Adobe documentation.

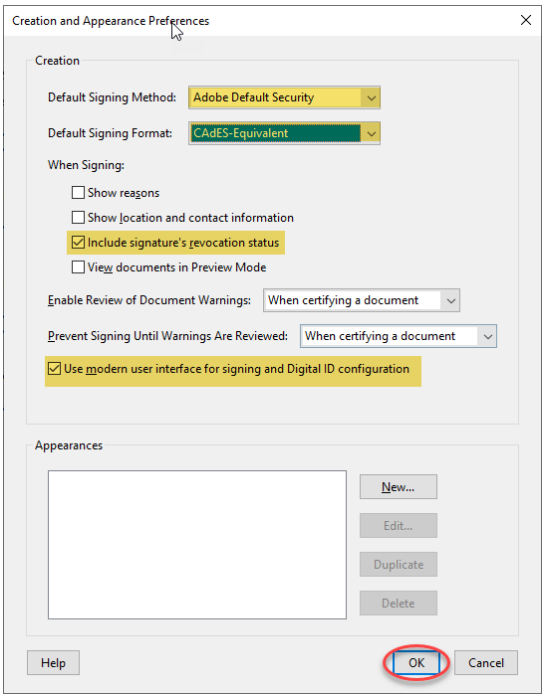
1. Open Adobe Reader and select **Edit** > **Preferences**. The Acrobat *Preferences* dialog box appears.



2. Select the ***Signatures*** option
3. In the **Creation & Appearance area**,

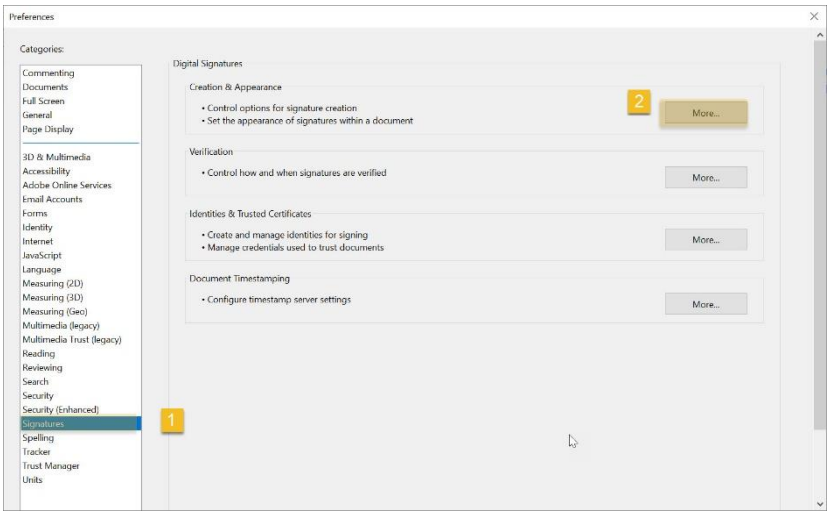
   Click on the button labelled '**More…**'

4. The ***Creation and Appearance*** Preferences box will appear.
5. Choose ***Default*** Signature Signing Method and Format
6. The option to '***Include signature's revocation status when signing***' should be checked.
7. The option to '***use modern user interface…***' should be unchecked.
8. Click **OK** to return to the ***Preferences*** dialog box.



9. In the ***Verification*** area, click on the button labelled '**More…**'

10. The ***Signature Verification*** Preferences box will appear.



11. In ***Verification Behavior***, The option to '***Require certificate revocation checking…***' should be ***checked***.

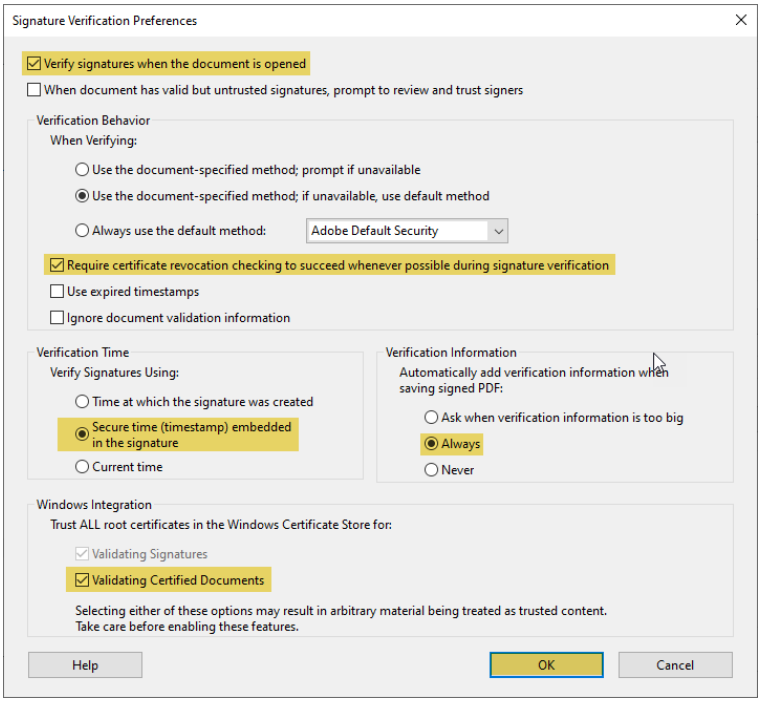
12. The option to '***Use expired timestamp***' should be ***unchecked***.

13. In **Verification Time** area, Choose ***'Secure time (timestamp) embedded in the signature'***

14. In ***Verification Information*** area, set ***'Automatically add verification information when saving signed PDF'*** to **Always**.

15. In the ***Windows Integration*** area, both of the options should be selected.

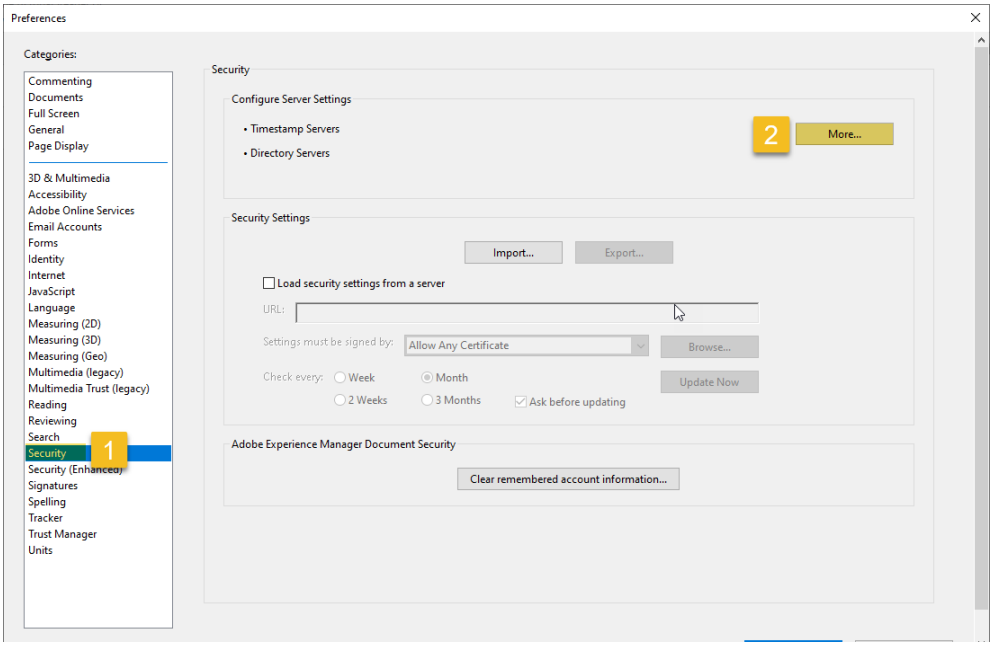
16. Click **OK** to return to the ***Preferences*** dialog box.



***Note**: Setting the **Verify signatures when document is opened** option automatically activates a validation procedure for all of the document's digital signatures when the document is opened. The default is that digital signatures are not validated automatically when a document is opened. For optimum workflow, it is best to check this option.*

17. Select the ***Security*** option

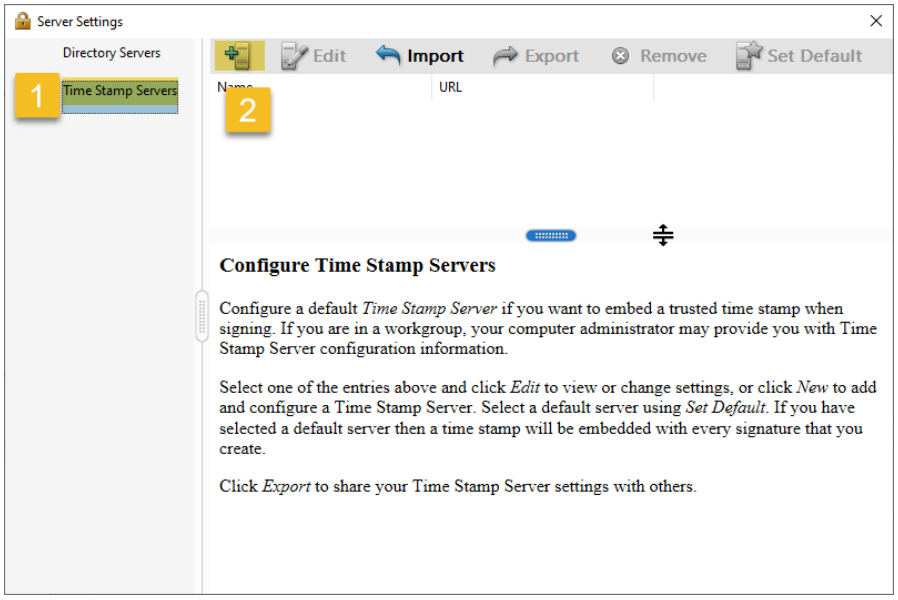
18. In the ***Security*** area, click on the button labelled '**More**…'



19. ***Server Settings*** box will appear.

20. Choose ***'Time Stamp Server'***. Then ***New*** to add a new Time Stamp Server.

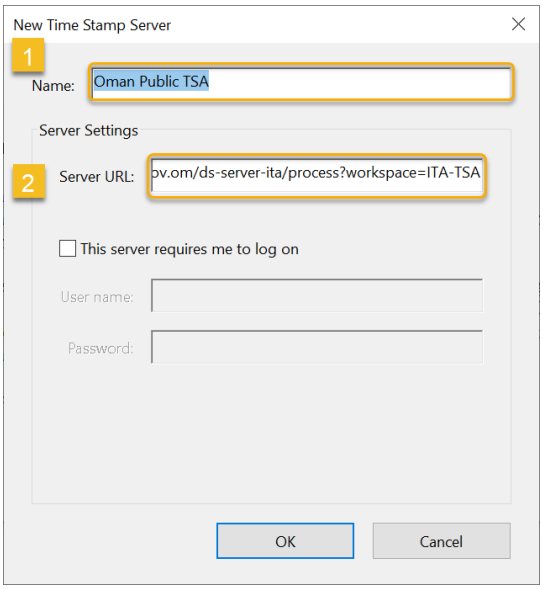
21. New Tim Stamp Server box will appear.



22. Set configuration as below:

Name: ***Oman Public TSA***

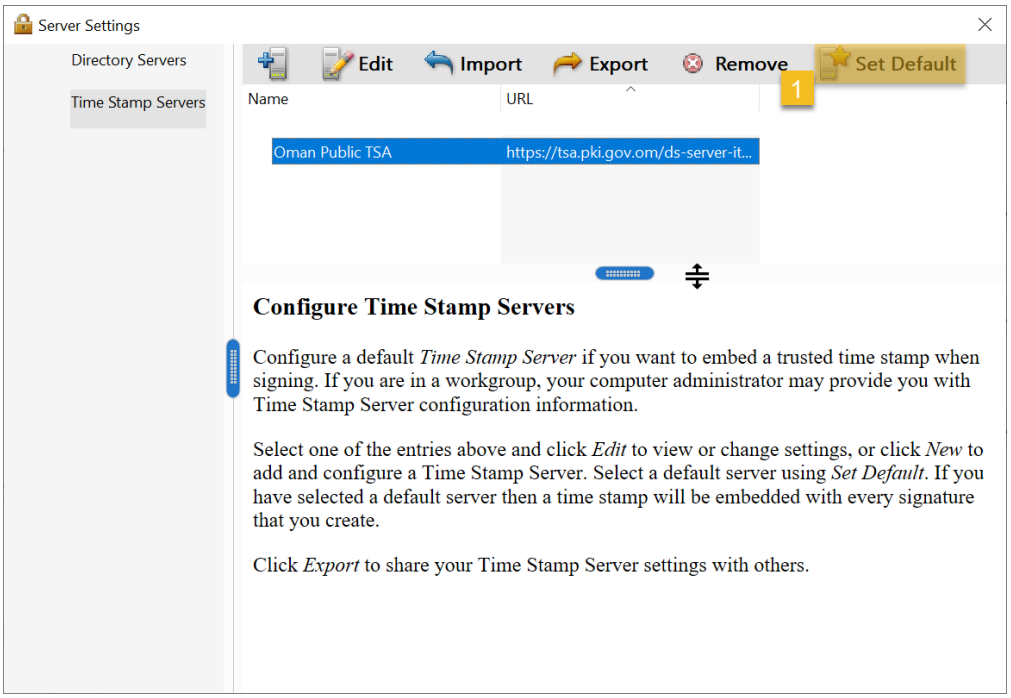
Server URL: https://tsa.pki.ita.gov.om/ds-server-ita/process?workspace=ITA-TSA



23. The new Server will be add.

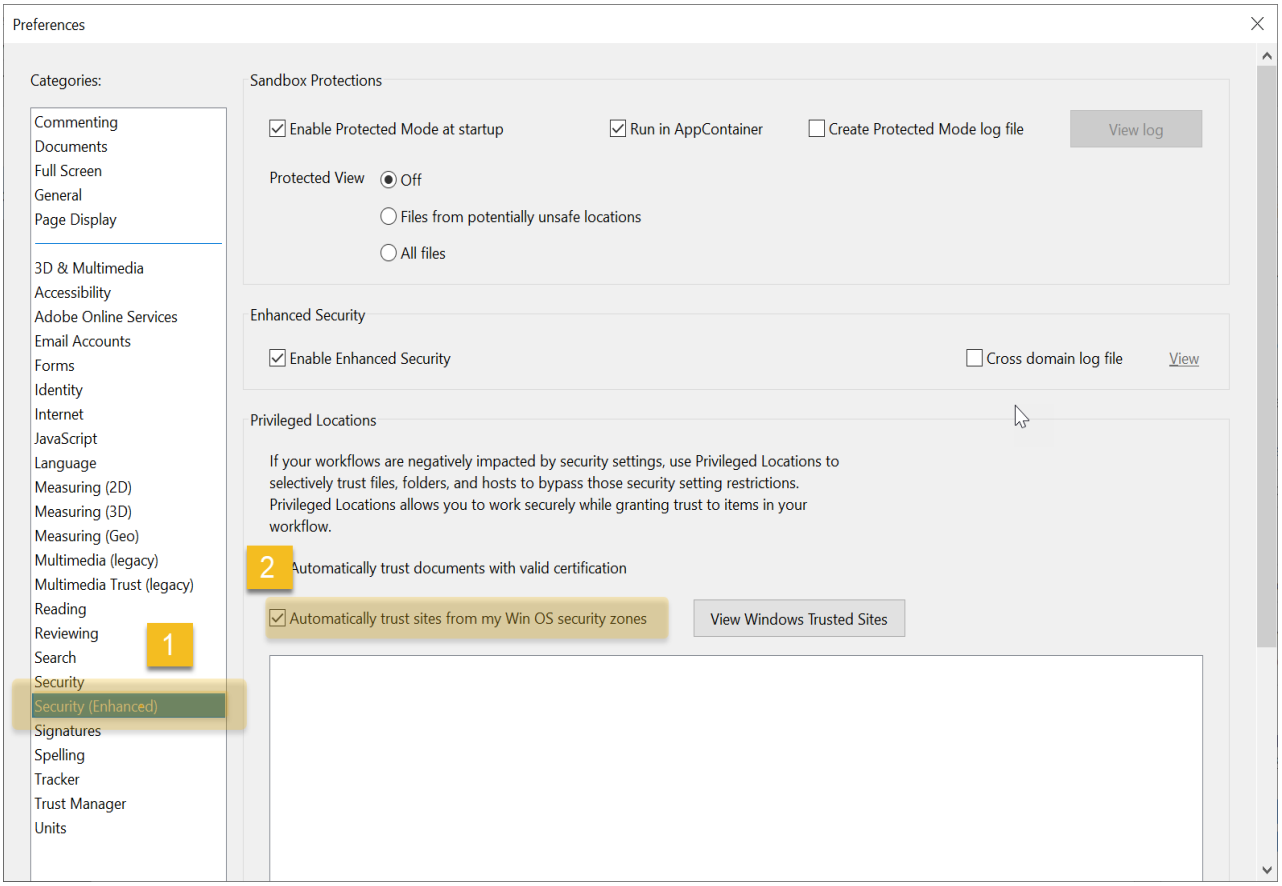
24. Choose ***Oman public TSA Server***, the click ***Set Default.***

25. Will be marked as a Star.



26. Select the ***Security (Enhanced)*** option

27. In the ***Privileged Locations*** area, the option to '***Automatically trust sites Win OS security zones box***' should be ***checked***.



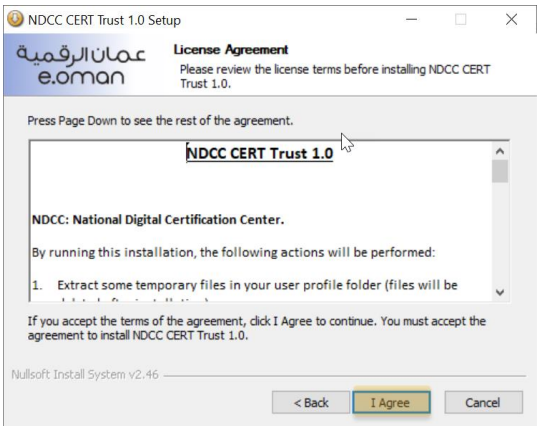
2.2 Second step is to install Oman ROOT Certificate in windows store:

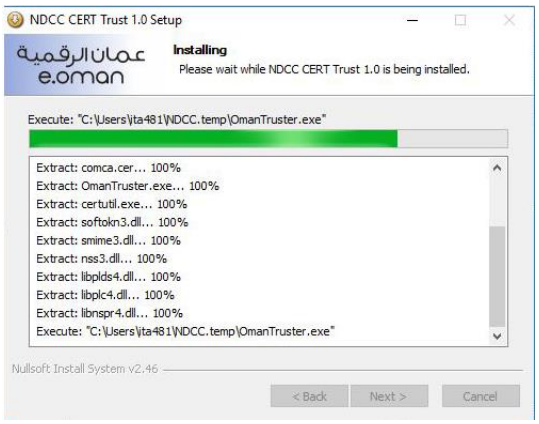
There are two different methods to download and install Oman ROOT Certificate to your machine. These methods explained below:

2.2.1 Method 1. NDCC-CERT_Trust-1.0.exe program

1.1. download NDCC-CERT_trust tool from the below link:
https://oman.om/tam/downloads/NDCC-CERT-Trust-1.0.exe

1.2. Once you run the program, the Setup Wizard will appear.





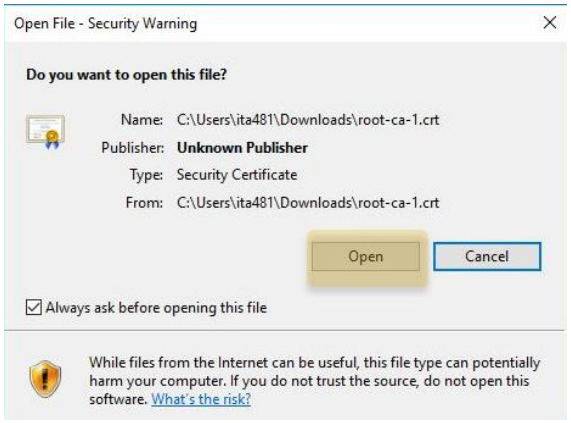
1.3. Once you complete all the steps, ***Oman ROOT Certificate*** successfully installed in your machine.

2.2.2 Method 2. Oman Root CA file

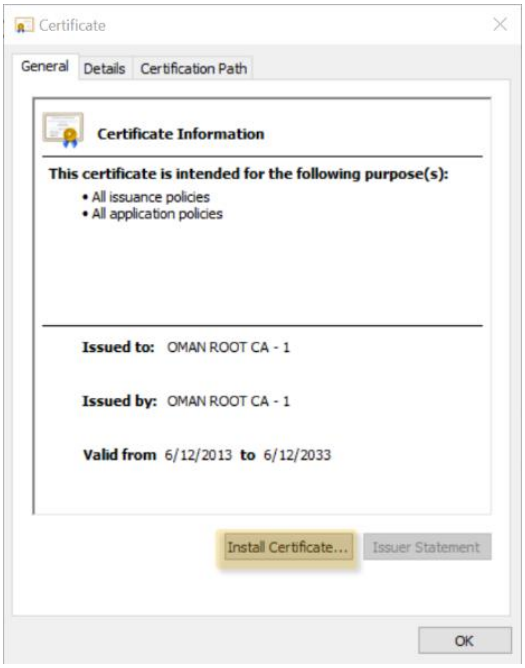
1.1. Download Oman root ca from the following link: http://pki.ita.gov.om/CACerts/root-ca-1.crt

1.2. double click on the certificate to open it

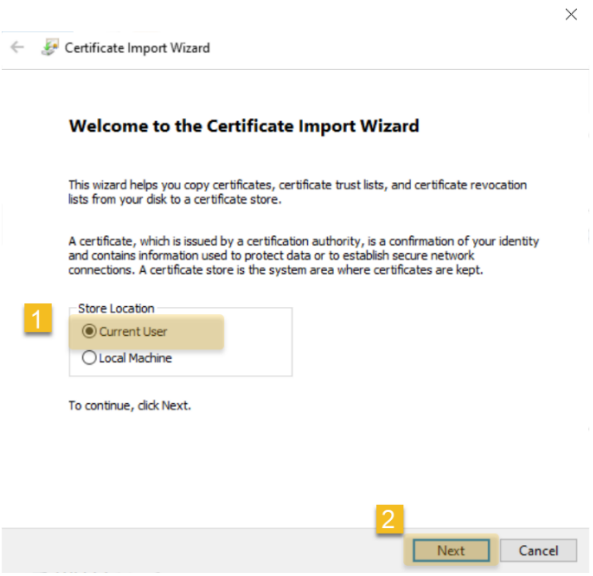
1.3. Choose to **open** it.



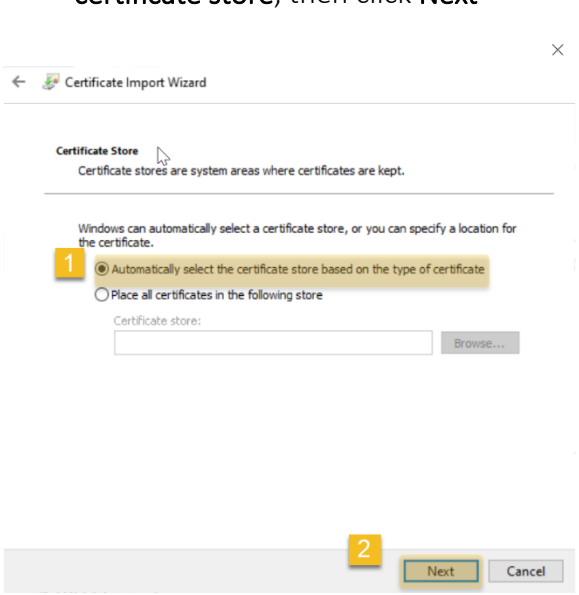
1.4. Click on **Install Certificate**



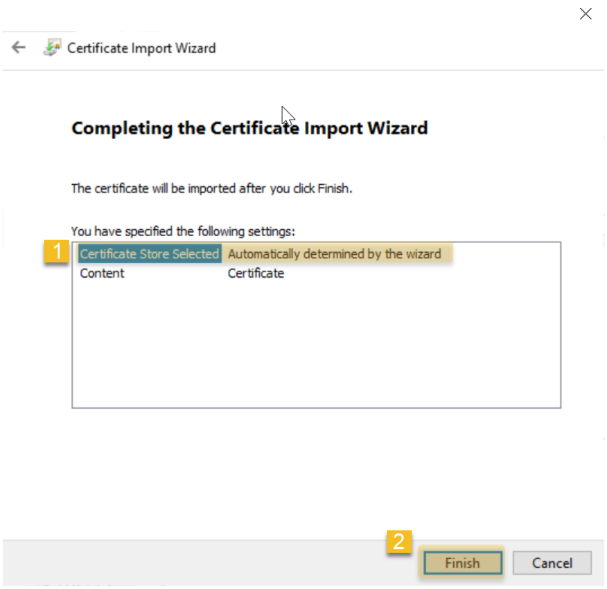
1.5. Choose **current user**, then click **Next**



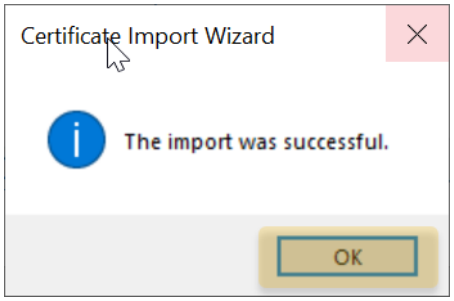
1.6. Choose **Automatically select the certificate store**, then click **Next**



1.7. Click **Finish**



1.8. Now it is successfully imported, Click **OK**



3. How to digitally sign a PDF document using the token

3.1 What is PKI token?

PKI token are hardware device that store digital certificates and private keys securely[1]. When you need to encrypt, decrypt or sign something, the token does this internally in a secure chip meaning the keys are never at risk of being stolen.

3.2 Token Type Description

MTC provides three types of certificates: Digital Signature Certificate, Secure Authentication Certificate, and Encryption Certificate. The certificates are issued inside a smart card device called Token. There are five types of Token issued by NDCC depending on the number of certificates:

- Token Classic: includes **signature** certificate only, which is used to sign documents and emails.
- Token Encryption: includes **encryption** certificate only, which is used to encrypt documents and emails.
- Token Advanced: includes **signature and Encryption** certificates, which are used to sign documents and emails, and to encrypt documents and emails.
- Token Premium: includes **authentication, signature, and encryption** certificates, which are used for secure authentication, to sign documents and emails, and to encrypt documents and emails.
- Token Pro: includes **authentication and signature** certificates, which are used for secure authentication and to sign documents and emails.

3.3 Token fees

Please contact us by email on pki@mtcit.gov.om to get the update price of token.

3.4 Who can request for PKI Token?

The corporate token is intended to be generated for corporate use. Government and private sector's employees are eligible to get token.

[1] https://www.microcosm.com/products/pki-tokens

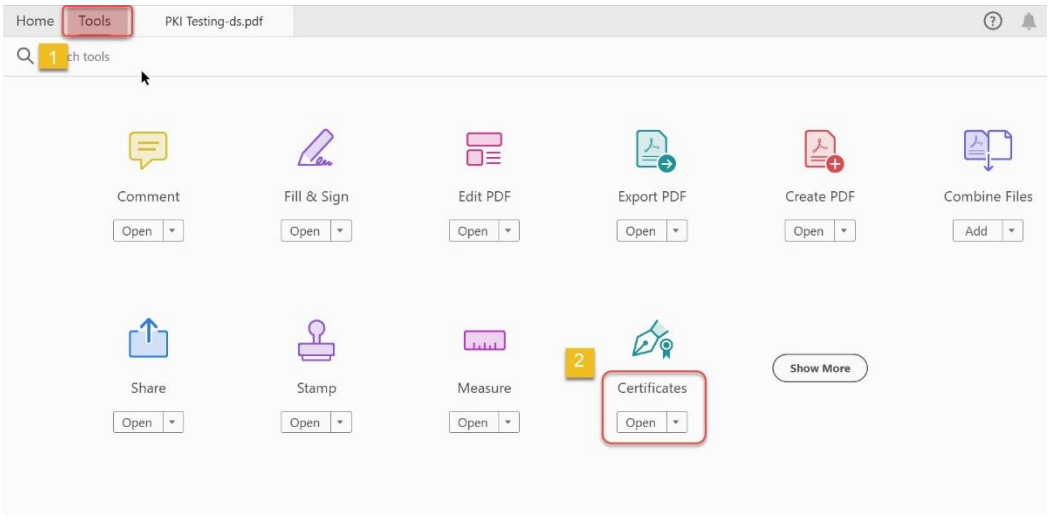
3.5 How to request for PKI Token?

- Send official Email for Technical team on pki@mtcit.gov.om
- Specify your requirements on Email, and objectives of your request
- Technical team will study your requirement and will be in follow up with you.

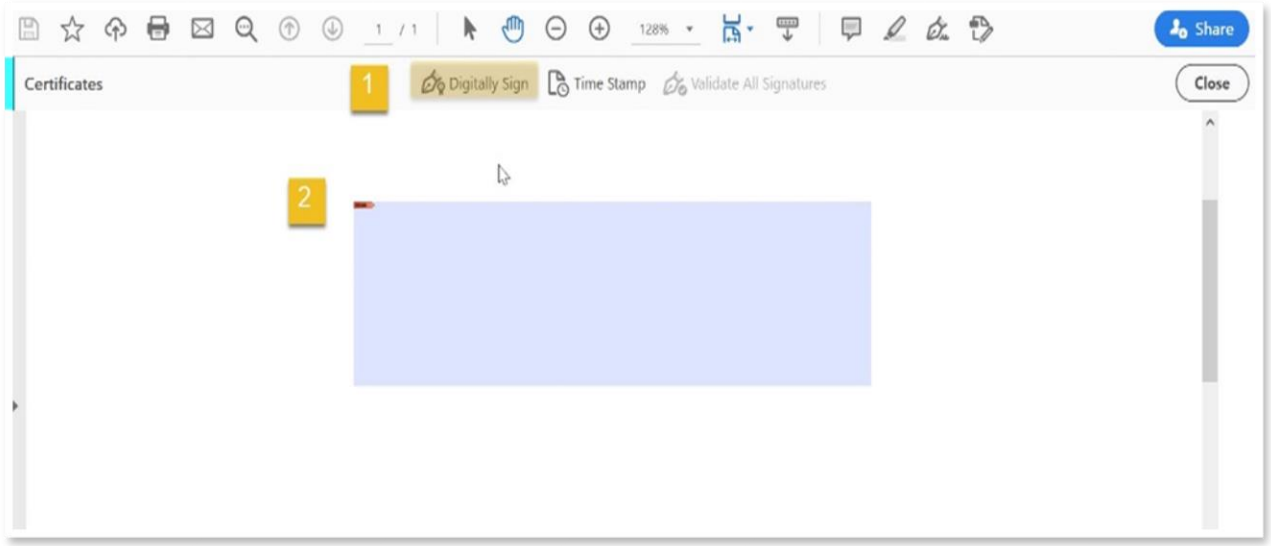
3.6 Digital Signature using PKI Token

3.6.1 To Sign a PDF document, follow the below steps:

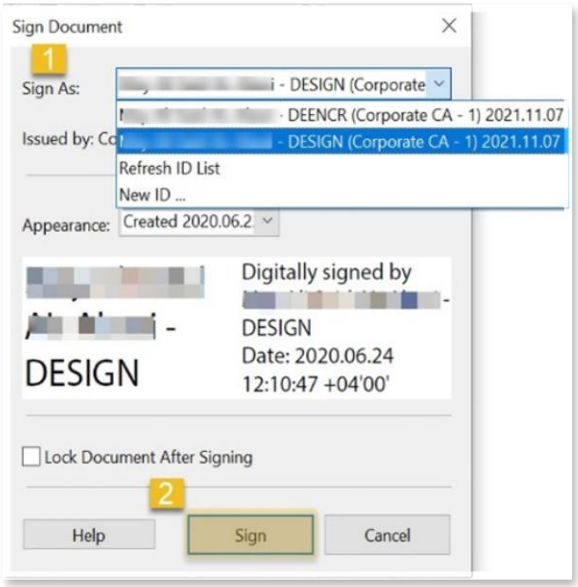
- **Open** PDF File.
- Select ***Tools***, and then choose ***Certificates*** as shown below.



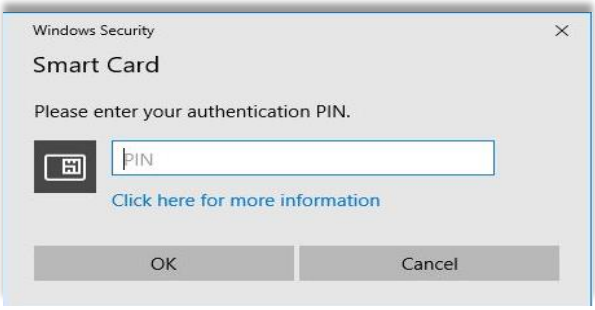
- Select ***Digitally Sign.***
- Choose the place where you suppose to sign, then draw a label for the signature as showing below



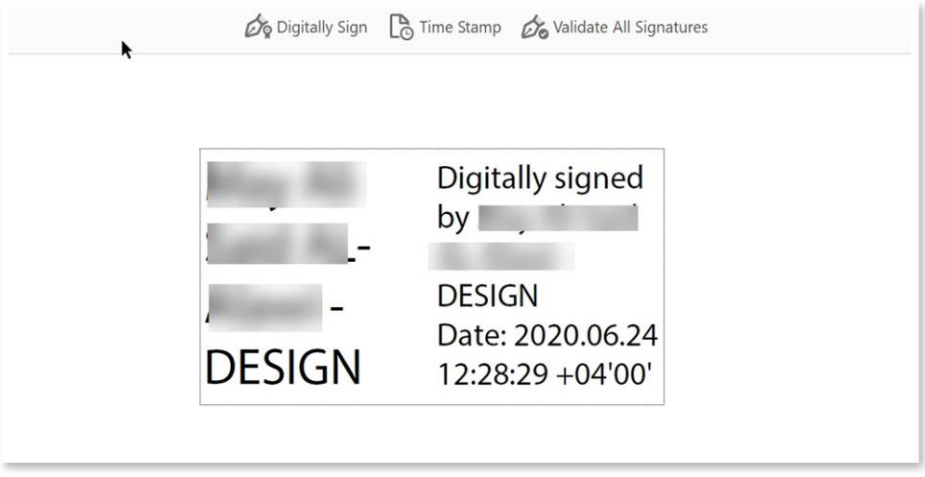
- The following box will appear. You have to choose (*your-name-**DESIGN***), then click ***sign***



- Save your Document, and then enter your ***TOKEN PIN.***

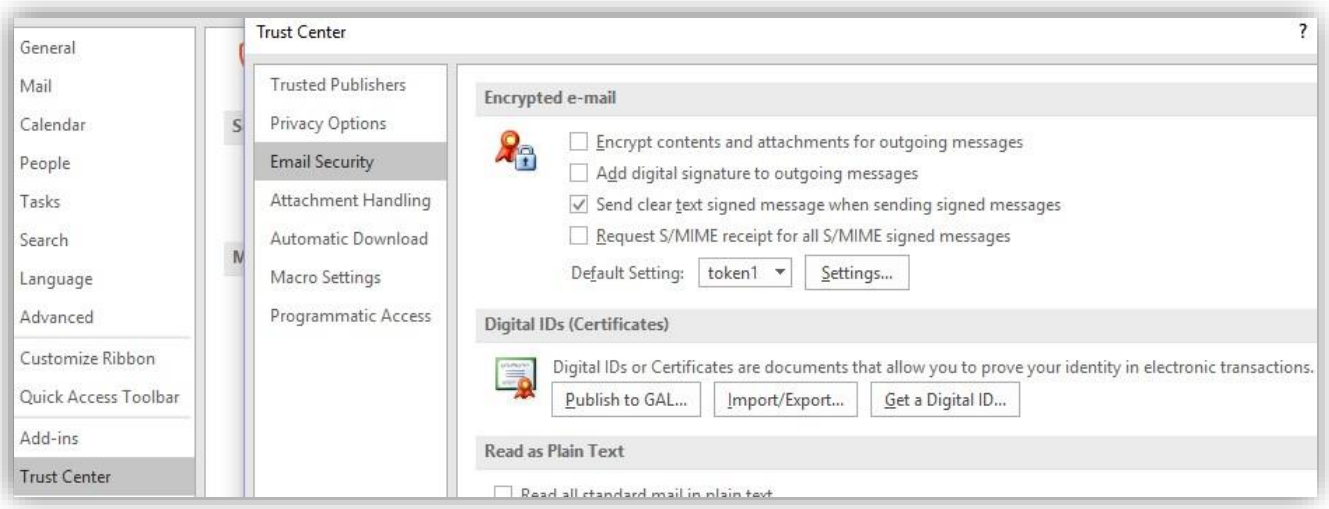


- Finally, your document is digitally ***signed***.

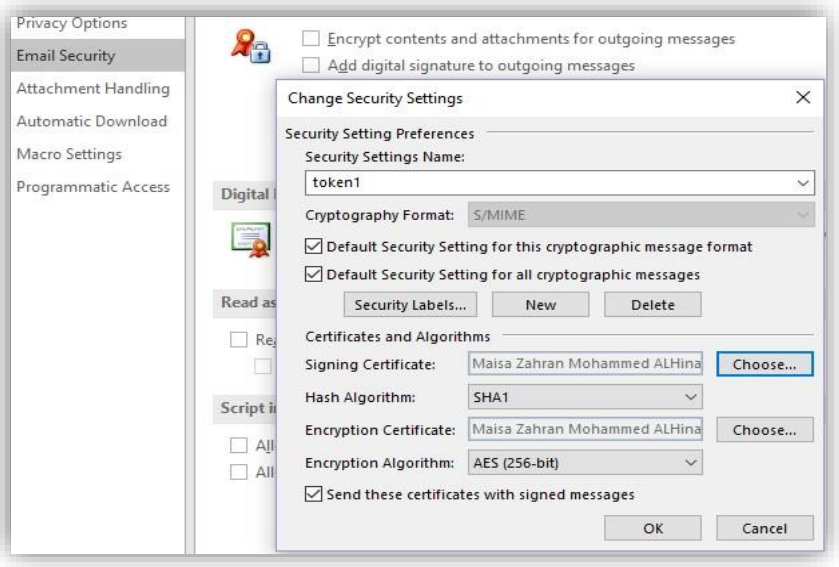


3.6.2 Email Signing

- Go to ***File***, then select ***Trust center***, then choose ***center setting.***
- From the menu, choose ***Email Security,*** then ***Default Setting,*** click on ***settings.***

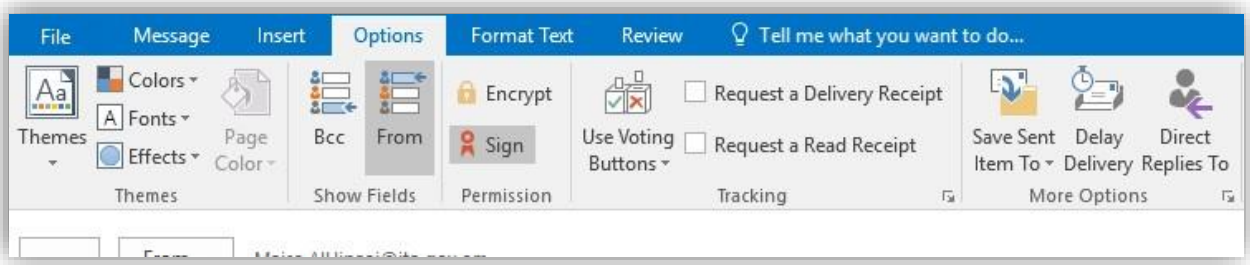


- Ensure to include signing certificate. On Certificates and algorithms section→Go to Signing Certificate→Press Choose→ Token Certificates will be appeared, choose (DESIGN).



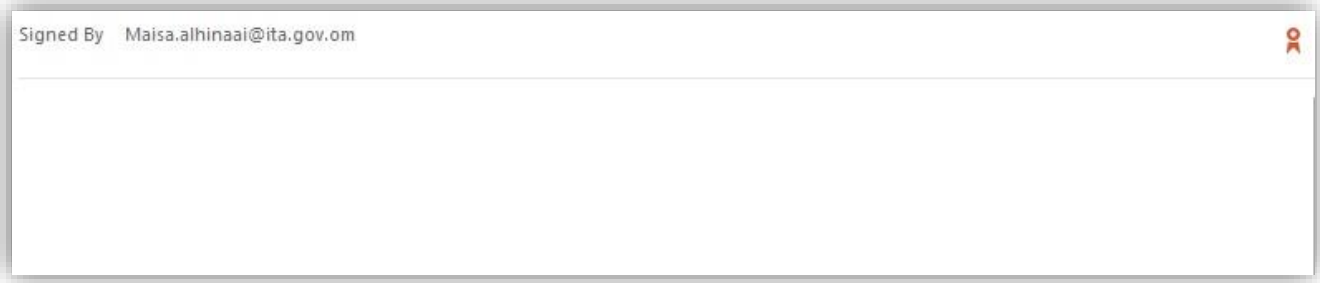
*Hint: This is for first time only.

- Go to new email, on option press Sign



- Add recipients of Email
- Press send, and system will ask user for Token PIN code

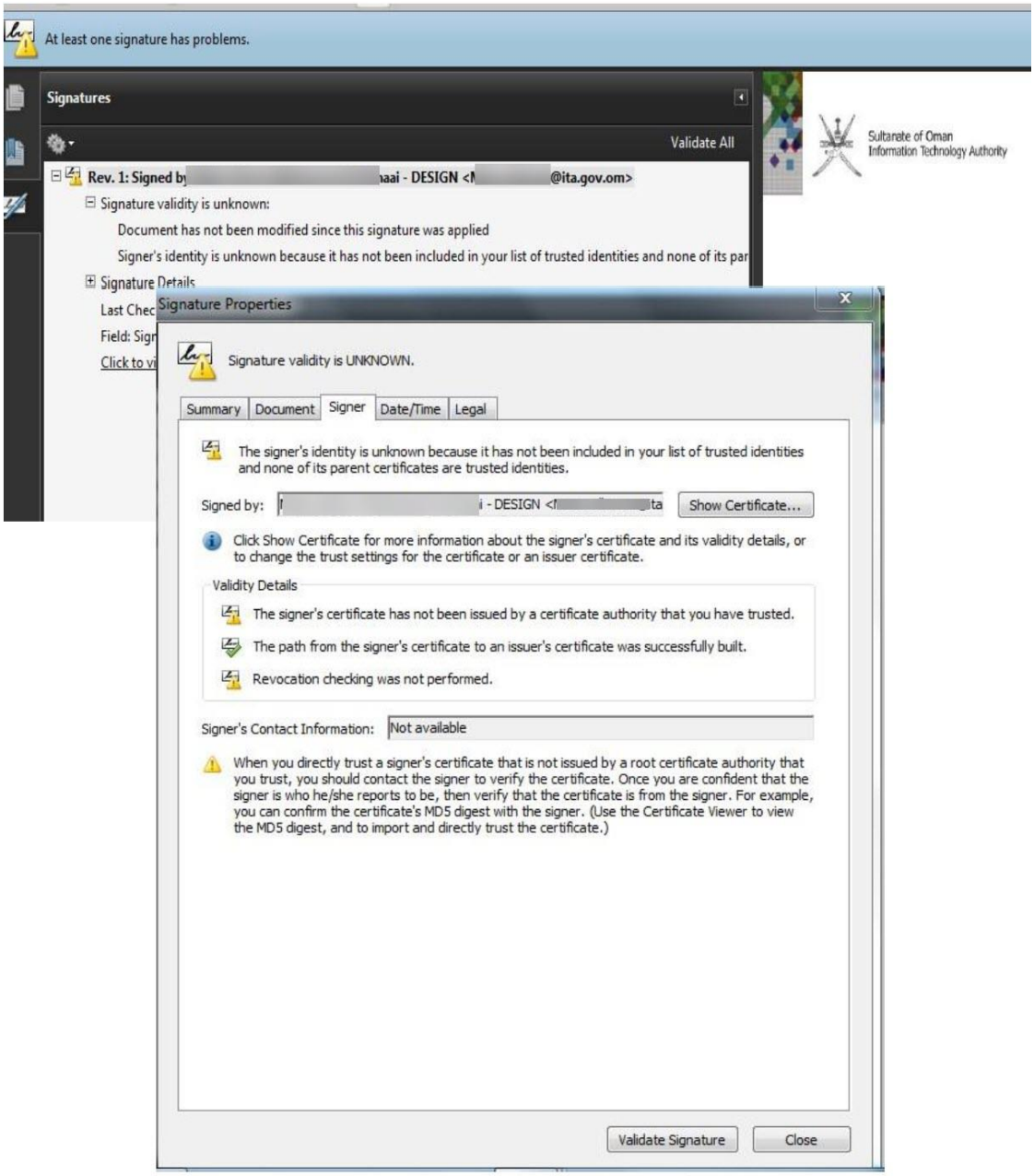
- Your email will be signed , and will appear as below



4. Digital Signature Validation in Adobe

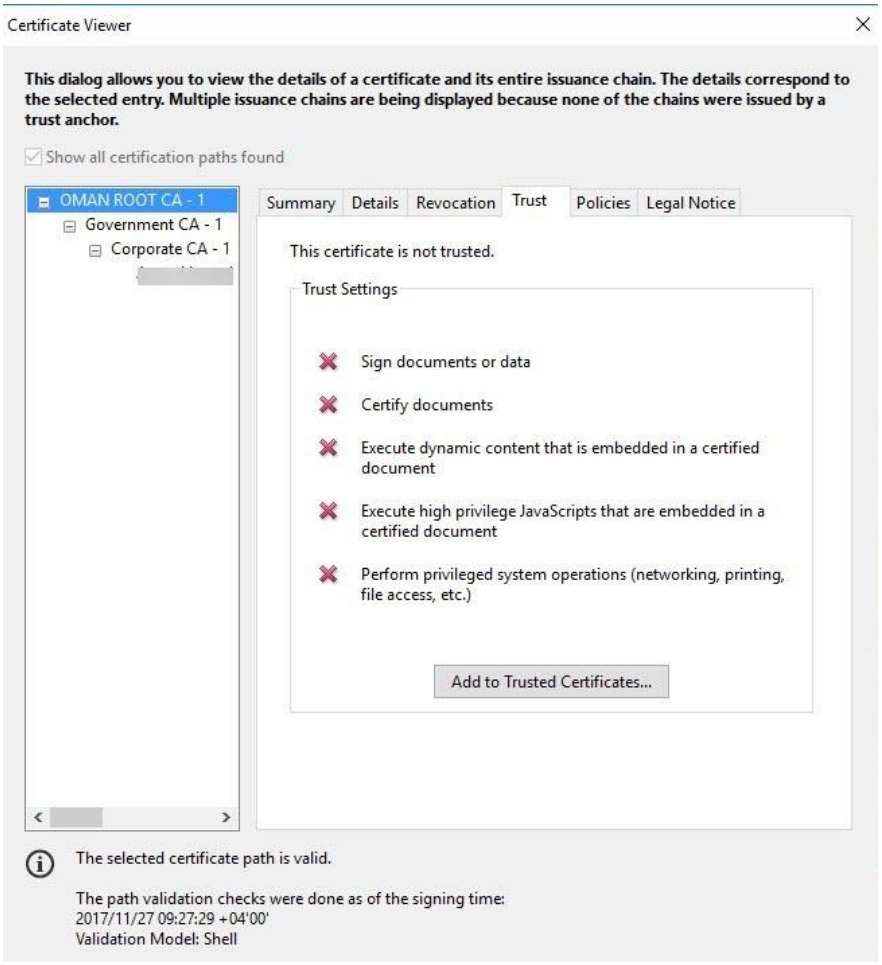
Some of the Root CA's are included by default in Windows Certificate Store (Trusted Root Certification Authorities) and only a few are included in Adobe Trusted Identities.

Because the Oman Root CA of the signing certificate is not included on Adobe Trusted Identities, the Signature is considered “not trusted” (but NOT invalid) as below

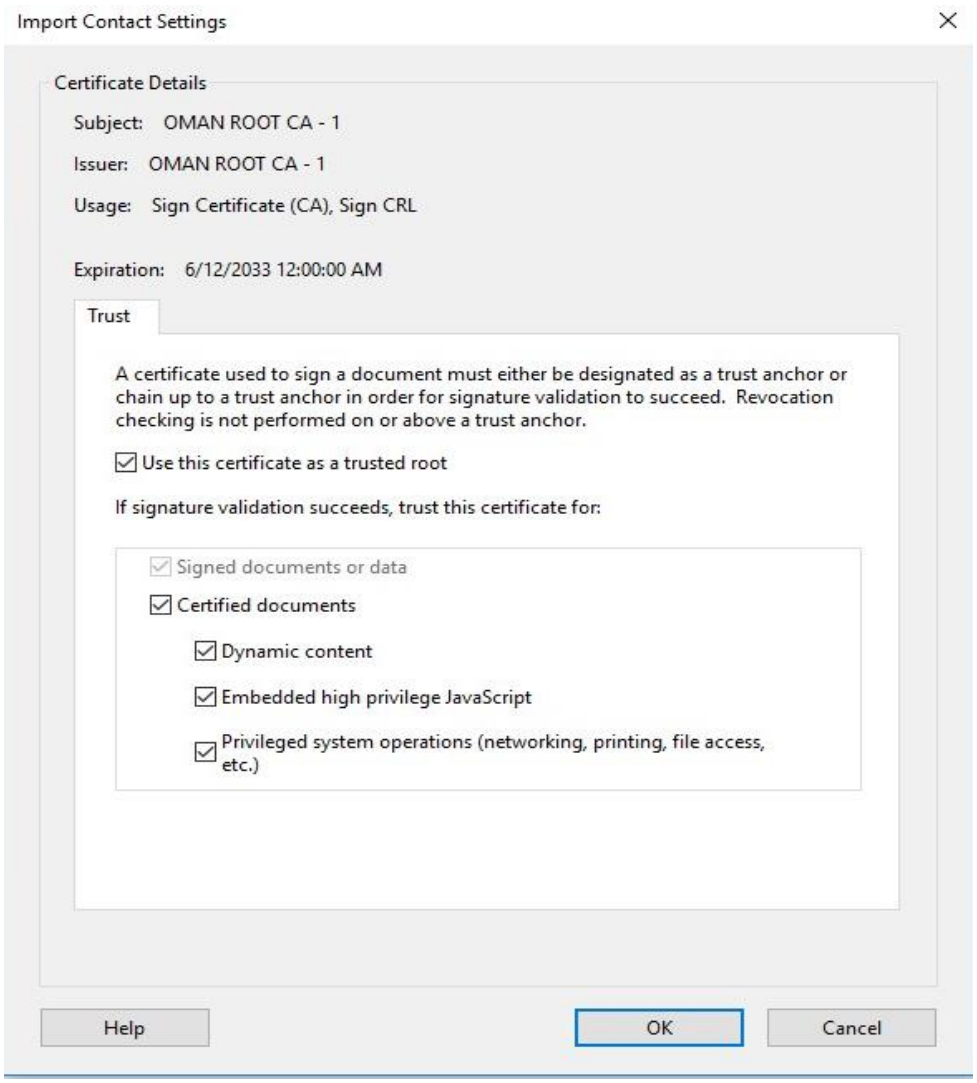


To manually add Oman Root CA Certificate on the Adobe Trusted Identities, open the signature properties and Signature is not trusted:

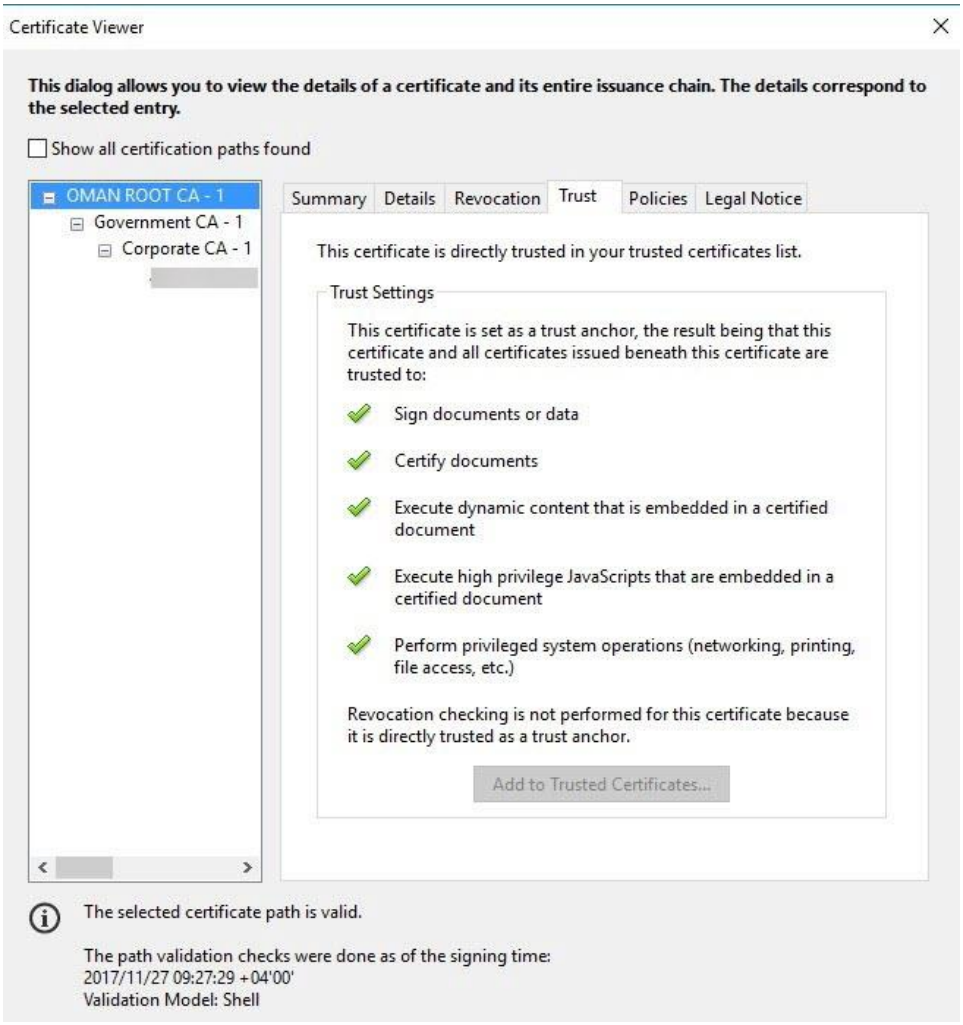
- Click Show Certificate and select Trust tab.
- Be sure that you have selected the topmost Root Certificate.



- Press Add to Trusted Identities tab and be sure you have checked all checkboxes, as below.



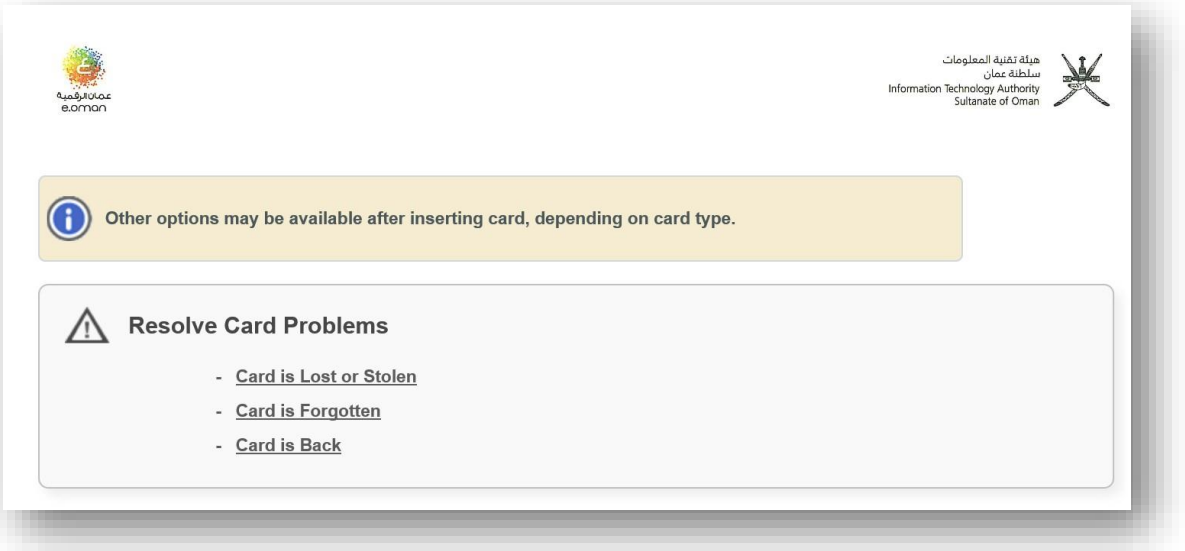
- After all dialog boxes are closed and the document is re-opened, the signature considered ***Valid***.
- The Root Certificate is now Trusted and all signatures generated with this Root Certificate will be also trusted.



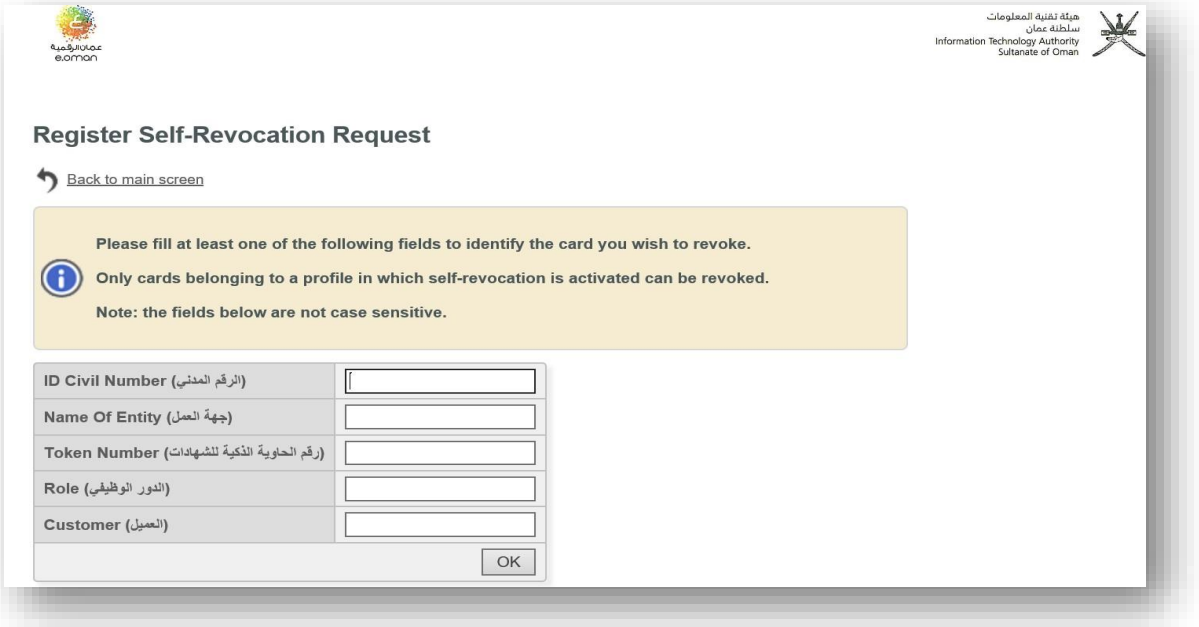
5. Token Cases and how to resolve issue through self care portal

Case 1: if you lost your PKI Token and you couldn't find it, or Token has been stolen (If you think you will not find/get the token back or you don't want to use the token anymore, then you need to revoke it to deny any online use of the token, then you can request for a new token later -if needed- following the request process.)

- ✓ Open self-care portal (https://selfcare.pki.mtcit.gov.om)
- ✓ Choose the option, (Card is lost or Stolen) as below



- ✓ System will ask you to enter your civil ID number as below

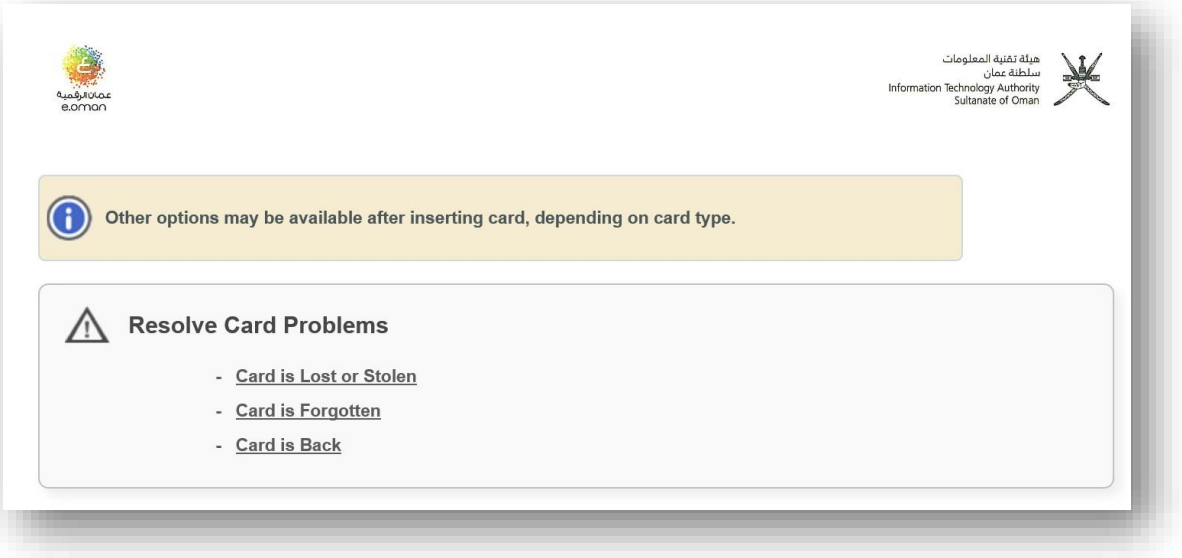


- ✓ Card(Token) serial number will be appear to you, choose card(Token) you want to disabled
- ✓ Then, system will ask you to answer your security question that you chooses during token Activation.
- ✓ If you can't remember the answer for the security questions then you need to contact PKI team on telephone number: 24166440 or email: pki@mtcit.gov.om

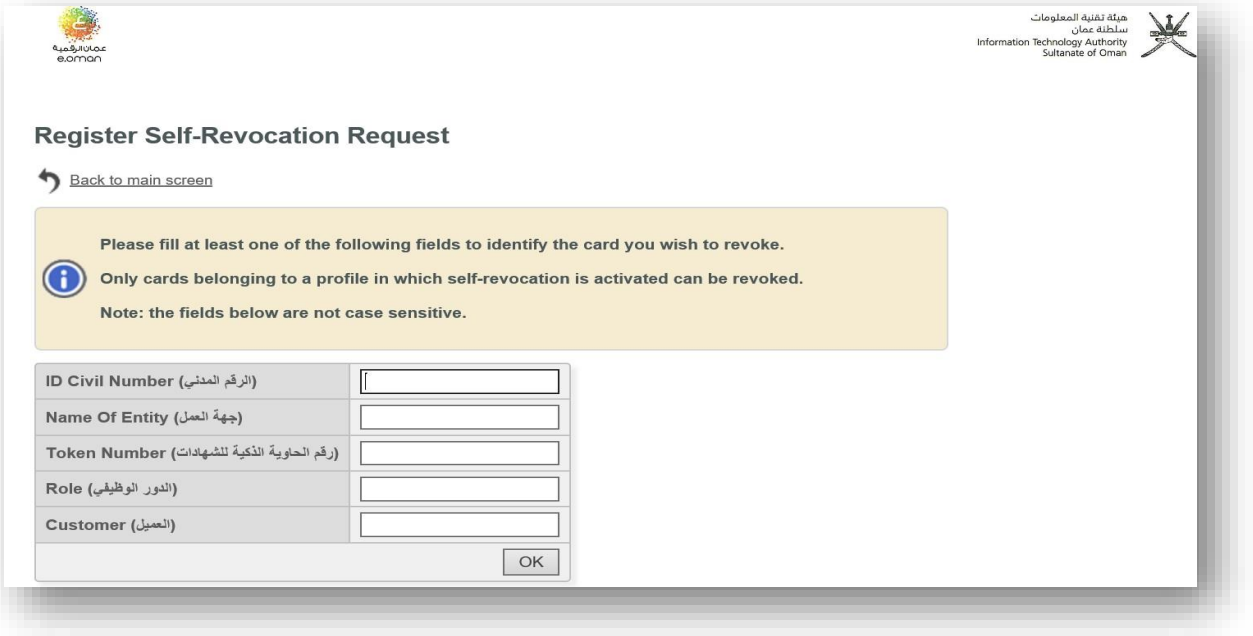
Case 2: if you lost your token in somewhere, and you are warry if someone find it and can use it if PIN code shared with other. (If you think you can find the token, but you want to suspend any online use of the token until you find/get the token.)

- ✓ Open self-care portal (https://selfcare.pki.mtcit.gov.om)
- ✓ Choose the option, (Card is Forgotten) as below

** This option will help users to disabled card for temporary (Suspension).



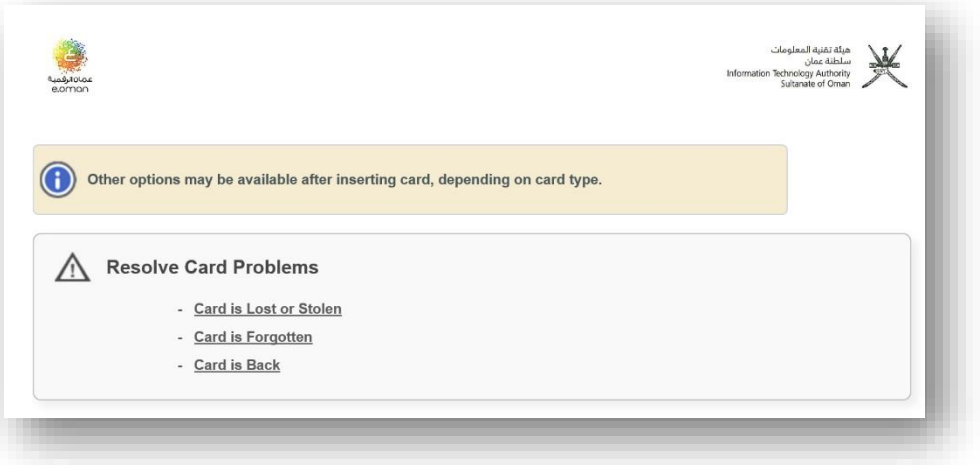
- ✓ System will ask user to enter Civil ID number.



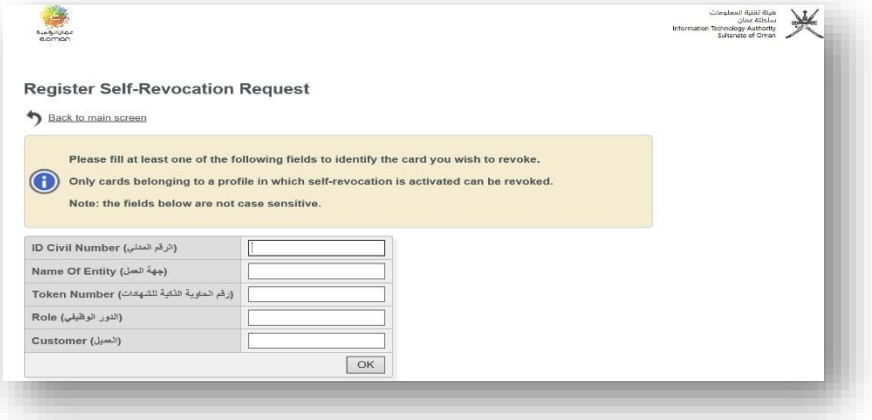
- ✓ Card(Token) serial number will be appear to you, choose card(Token) serial number you want to disabled.
- ✓ System will ask user to answer security questions that you choose them during Token Activation.
- ✓ If you can't remember the answer for the security questions then you need to contact PKI team on telephone number: 24166440 or email: pki@mtcit.gov.om

Case 3: To resume your suspended Card (Token) to be able to use it online again.

- ✓ Open self-care portal (https://selfcare.pki.mtcit.gov.om)
- ✓ Choose the option, (Card is back) as below



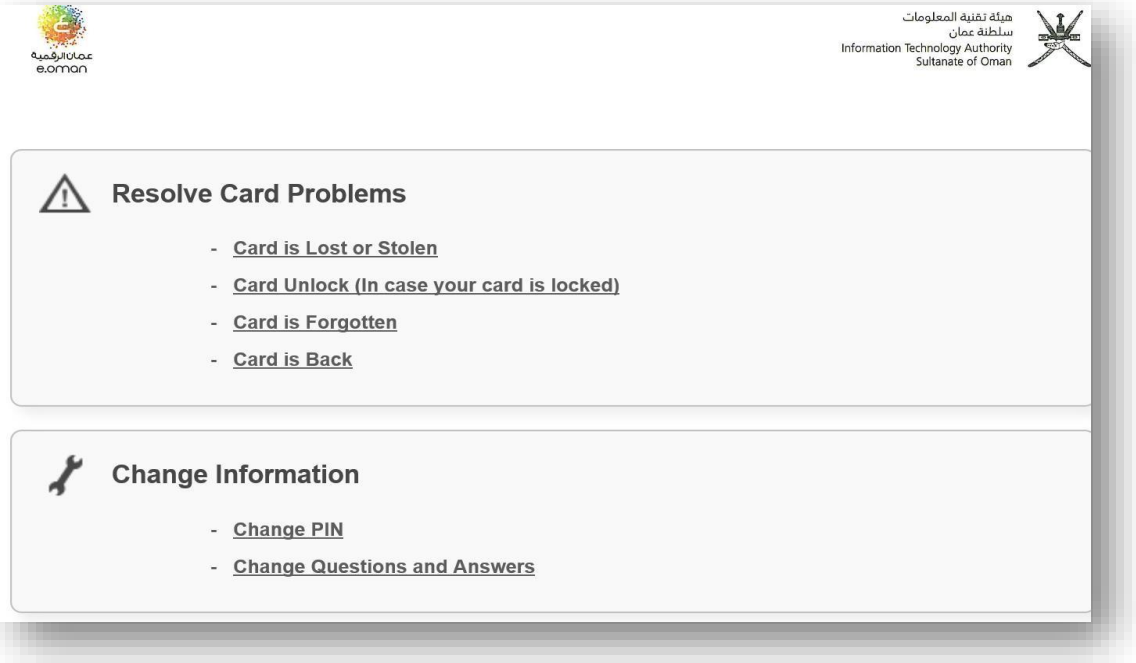
- ✓ System will ask you to enter your Civil ID number



- ✓ Result will be appear, if you request before to disable card or not.

Case 4: if you enter PIN code for Token three time wrongly, and token is blocked.

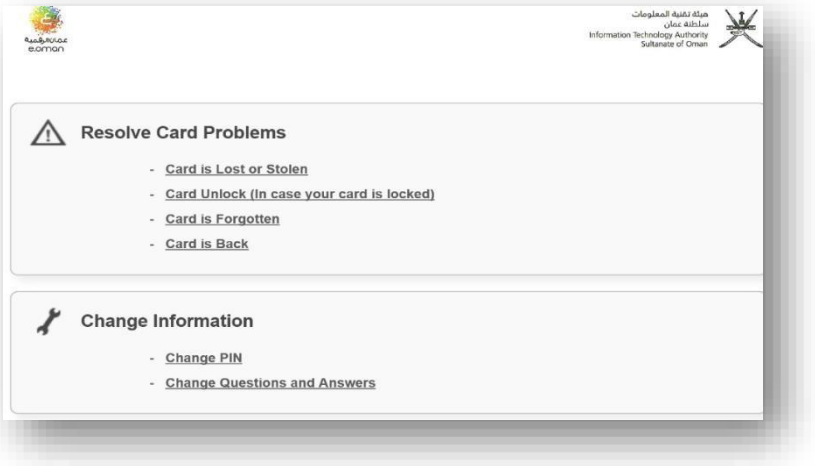
- ✓ Open self-care portal (https://selfcare.pki.mtcit.gov.om)
- ✓ Insert your token in laptop
- ✓ Choose Card Unlock (In case your card is locked)



- ✓ System will ask user to answer security questions that you choose them during Token Activation.

Case 5: if you Want to change your Token PIN code.

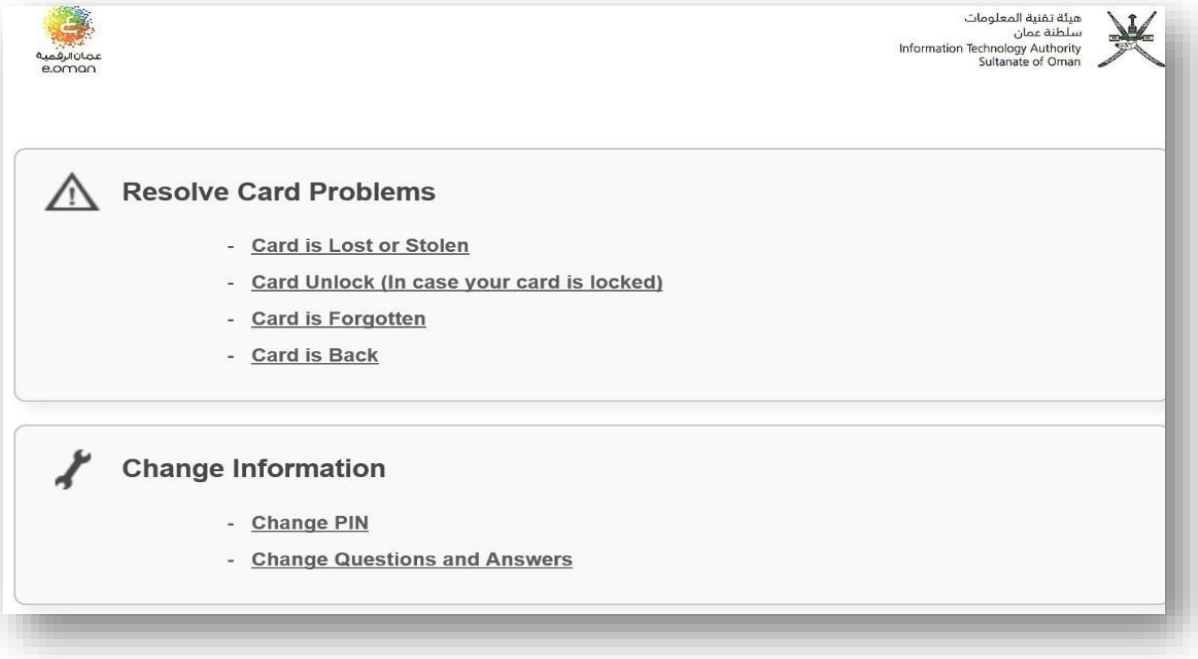
- ✓ Open self-care portal (https://selfcare.pki.mtcit.gov.om)
- ✓ Insert your token in laptop.
- ✓ Go to change information section.
- ✓ Choose, change PIN



- ✓ System will ask you to enter your Current PIN code, and New PIN code

Case 6: if you Want to change your Security questions.

- ✓ Open self-care portal (https://selfcare.pki.mtcit.gov.om)
- ✓ Insert your token in laptop.
- ✓ Go to change information section, and choose change security questions



Thank You for Using PKI Services