e-Form

a secure and fully automatic electronic form processing system

What is e-Form?

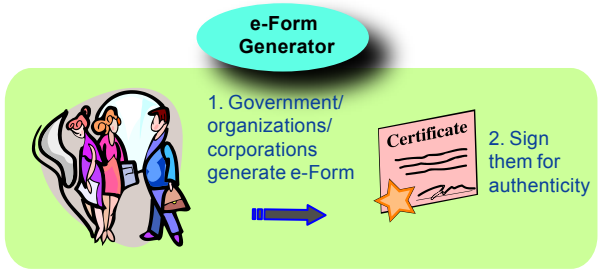
e-Form is an end-to-end solution that provides a secure, efficient, and effective way for electronic form submission and handling. It connects end users to enterprise processing system directly without human intervention in-between. It is a non-proprietary implementation that bases on open standards such as XML, PKI, SOAP, and JAVA, which in turn provides low-risk commitment on technology and cost-effective investment in supporting interoperability with other systems.

e-Form consists of four major components:

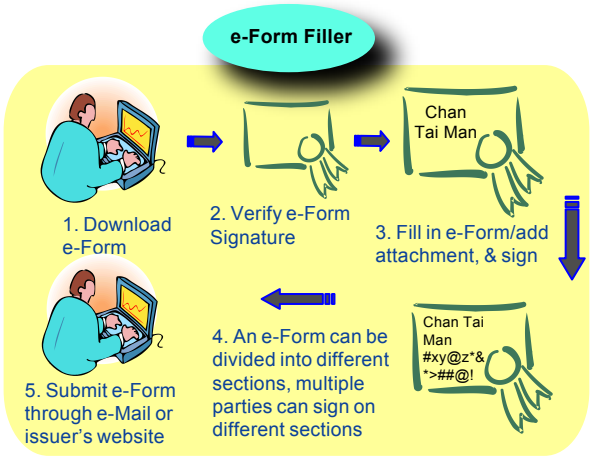
- e-Form Generator (GUI program for form issuer)
- e-Form Filler and e-Form Mobile App (GUI program for the general public)
- e-Form Processor (engine that integrates with enterprise computer system)

How e-Form works?

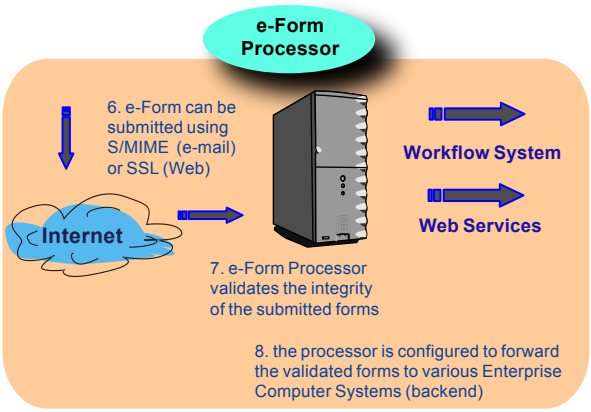
e-Form Generator is a tool for form issuer to define e-Form in XML format. You can use the generator to import a PDF file, create input sections, textfields, check boxes, and other input elements on top of the PDF file. Inside the generator, you can also define a signing sequence of signatures for input sections, digitally sign the form as an issuer, export the form as an XML document, and print the form exactly as it is seen on screen.



e-Form Filler and **e-Form Mobile App** are tools for users to fill in an e-Form. When a user opens an e-Form file, he/she can verify the digital signatures on the form by a single button click . The user can save the forms together with the data entered anytime for record keeping purposes. Other basic operations such as section-based digital signing, data encryption and decryption, signature verification, file attachment, and form printing are also supported.



e-Form Processor is the gateway to e-Form submissions, which is configurable to facilitate document routing to various backend systems and Web Services. Upon receiving an e-Form, the processor will decrypt the submitted data, verify the associated digital signatures and the corresponding certificates, and validate the form data against the defined business rules. e-Form Processor supports multi-channel submission, which includes secure e-mail using S/MIME and web browser using SSL. After the verification and validation process, a validated e-Form will be forwarded to the corresponding backend system for further processing.



Why use e-Form?

- Lower the cost and improve the quality of information collected
- Provide intuitive and WYSIWYG Graphical User Interface
- Simplify and hasten the business flow of collecting critical data
- Enhance data security by employing PKI technology
- Promote a “greener” living environment by means of paperless transactions
- Support both online and offline form filling
  - User can fill in the forms at his/her own convenience
  - User can keep his/her own copy of form after submission
  - Support multiple-party form handling

Feature Highlights

- Pure Java Implementation for the desktop client component (e-Form Filler and e-Form Generator)
- Native Implementation for the mobile platform component (e-Form Mobile App for iOS and e-Form Mobile App for Android)
- Direct turn-key solution that covers the whole form processing lifecycle
- Embedded PDF allows direct reuse of existing forms
- Standard XML format for easy interpretation and processing
  - platform-independent, well-supported, and human legible
- Readily customizable to suit specific corporate needs
  - client-side input validations using JavaScript
  - server-side business rule validations by implementing a standard Business RuleValidator interface
  - direct backend integration to Web Services or customized backend connectivity by implementing a standard BackendConnector interface
- Zero-cost deployment as web application
- Multi-channel form submission via HTTP over SSL or S/MIME
- Online mode allows dynamic pre-filling of personalized data on e-Form templates
- Offline mode allows filling form anytime at user’s convenience
- Multilingual display, input, and printing (including HKSCS)
- Scalable and high-resolution printing output
- Support commonly used input elements with configurable field validation rules
  - text area, text field, numeric field, date field, time field, check box, radio button group, object strike out group, and file attachment
- Ensure authenticity and data integrity
  - allow form issuer and users to digitally sign the form
- Multiple signatures
  - support parallel or sequential signing on the same or different sections
- Signing sequence control
  - able to define signing sequence via nested signature definitions
- Automatic certificate validation and CRL checking
- Support password-based or recipient-based encryption
- Centralized certificate management service
- Support software/hardware key storage, including smartcard, hardware token, hardware security module and PKCS#12 file
- Compliant to W3C/IETF's XML Signature Syntax and XML Encryption Syntax

System Requirements†

Operating System	*Microsoft Windows:* 2008R2/7/8/10 ; *Apple*: Mac OSX; *Linux*; Mobile platform: Android 5 or above, Apple iOS 9 or above;
Application Server	J2EE compliant application servers like Apache Tomcat and JBoss Application Server
Runtime Environment	Java SE Runtime Environment (JRE) 8 and above

† Design and specifications are subject to change without prior notice.

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