Understanding Electronic & Digital Signature

Its use, the US Laws governing it, and FormFire’s e-Signature process.

Background
There is a great deal of misunderstanding in business about what constitutes an electronic signature—and whether or not any specific technology is compliant with the various laws and industry regulations. The area is further complicated by advancements in technology and the wide range of digital devices now in use.

Here, FormFire will try to address the specific laws and regulations in an effort to provide an understanding on how their e-signature process complies and is evolving with new demands.

It is important for the discussion to elaborate on the distinctions between an electronic signature, digital signature and electronic records.

Electronic Signature
Electronic signatures are an "electronic sound, symbol or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record."—Electronic Signatures in Global and National Commerce (ESIGN) Act, Section 106. It can be in the form of simply typing one’s name, clicking an “I Agree” button, signing an electronic pad or entering a Personal ID or password. No specific technology needs to be used in order to create a valid signature.

Digital Signature
Once a person has electronically signed a record, the digital signature ensures "that the identity of the signature and integrity of the data can be verified.”—Federal Information Processing Standards (FIPS) Publication 186-2 (2000).

Digital signatures are generated using a form of asymmetric cryptography which makes use of a pair of keys; the Public Key and Private Key. The Public Key may be distributed to anyone who needs it, while the Private Key is kept secret. Signatures, and the event of signing, can only be generated by the owner of the Private Key, while anyone with the sender’s Public Key can verify that an authentic signature event took place.

Electronic Records
According to the ESIGN Act, “a signature, contract or other record... may not be denied legal effect, validity or enforceability solely because it is in electronic form.” In effect, electronic records have the same authority as other paper records, so long as there is an appropriate electronic and digital signature that meet the following requirements:

1. Be under the control and direction of the signer.
2. Be unique.
3. Be identifiable.
4. Be unalterable.
5. Carry indication of the individual’s intent to sign.

FormFire strictly complies with and even exceeds each of these requirements.

**Legal Risk vs. Business Risk**

Having a digital signature process you can count on brings the freedom to act on many other digital business initiatives. Groups who can deploy an e-signature program can and will gain the widely known efficiencies it brings through e-Commerce and paper eradication.

It is important however to recognize that the specific implementation of an e-signature technology will affect its legal enforceability. The laws around electronic signature are designed to remove or reduce the Legal Risk. The Business Risk though, still plays a part in maintaining a dependable e-signature process.

In looking at Business Risk, here is a typical everyday example:

It is common practice for an end user software license agreement to require a user to click on an “OK” button before allowing installation of a software application.

For an ordinary software application, where most users understand the risks associated with software applications, the Legal and Business Risk level is acceptable. However, from a pure Business Risk standpoint, clicking a simple button like this will likely not be acceptable in closing on a mortgage, buying a car, or purchasing health insurance.

FormFire is confident that it is one of a few companies in the market today with a solution that enables organizations to deploy a technology which embodies their business policies together with their legal and compliance needs—all while minimizing the risks associated with automating signature-centric processes.

**FormFire’s eSignature Technology**

FormFire’s proprietary electronic signature technology was developed specifically to meet the needs of the health insurance industry.

The technology, which is under constant review as technology moves forward, captures a humanly generated or directed signature event that:

- Cannot be forged by machine.
- Can be displayed on paper as clearly as a standard “wet” signature and has means to verify it.
- Contains the exact time and IP address of the signature event.

Any change made to an employee’s data automatically invalidates the electronic and digital signature and the data cannot be transacted until it is re-signed. All documents (in PDF format) sent via FormFire are electronically signed by the employee using FormFire’s eSignature technology.

**FormFire’s Digital Signature**

Any PDF document sent via FormFire is digitally signed using FormFire’s Private Key and is readily verifiable using the matching Public Key. In this way, a document recipient can be absolutely sure who sent it, that the signature event has been authenticated and it has not been modified.

**FormFire’s Online Process:**

1. Employees are invited to create FormFire accounts by their employer by the giving of a unique
Employer Code. This meets a fundamental level of independent identification.

2. As the employee establishes an account, they are asked to provide a number of additional pieces of personally identifiable information such as Name, SSN and Employer Code. This is compared against any established record of the employee, such as a pre-loaded census. All communication/interaction is done over a secure SSL connection.

3. As the employee enters their relevant personal data via the FormFire Interview. Each page view is logged automatically for verification against a later electronic/digital signature.

4. Once the employee has completed the interview, they are presented with a complete summary of the information they have provided. At this point, any edits can be made.

5. Upon confirmation that the information on file is complete and correct, the employee is presented with all necessary legal disclaimers and asked to electronically sign the record.

6. FormFire’s electronic signature technology captures the signature event from whatever technology choice the employee has chosen, digitally binding it to the employee’s data, and marks that employee as “Complete”.

7. Once the entire employer group has completed this process, the forms can be sent to the carrier, at which point a digital signature is applied.

Conclusion
FormFire recognizes that although the process should adhere to a governing standard, various organizations will adopt different technology solutions based on several factors:

- The cost to implement and maintain a solution.
- The usability and impact of the technology on legacy systems.
- The acceptable risk mitigation associated with the transactions being performed.
- The ease with which the signers can use the process.

Electronic signature law is a complex, highly specialized and relatively new body of law. The application and interpretation of that body of law to specific transactions can be highly dependent upon the nature of the transactions, the specific circumstances surrounding the transactions, as well as the industry in which the electronic signature technology is being used.

This document is not intended to provide any form of legal opinion or legal advice— and should not be relied upon for that purpose. It is provided solely for the familiarizing the reader with certain aspects of FormFire’s approach and to denote certain aspects of electronic signature law that FormFire took into consideration when designing its process.

About FormFire, LLC.
FormFire, LLC is a specialized application service provider supporting the health insurance industry as they move towards enhancing services through the eradication of paper and the leveraging of digital systems. It was founded in 2006, after an extensive 3-year product development. FormFire’s goal is to build a unifying digital workflow system that serves the whole insurance market—particularly where private health information and medical underwriting are part of the normal business processes.

FormFire is headquartered in Cleveland, Ohio. USA.