

## *Identification and Authentication*

### **Vocabulary: (vɔːkəb'ylɪrɪ)**

- **Identification**  
Proof or evidence of identity  
Determining who a person is/or purports to be.
- **Authentication**  
To establish the authenticity of; prove genuine  
**Proving** that the person is who they are identified as.
- **Signature**  
A distinctive mark indicating identity  
A unique hand drawn image used to indicate agreement
- **Digital Signature**  
A method of using a *private key* to provide proof that a document is unaltered. The document itself is considered “Signed” by the use of the *private key*.
- **Digitized Signature:** a digital image of a physical signature created either by scanning a physical signature or by using stylus, sensing pad, or similar device (even a mouse) to create a digitally replicated signature.
- **Electronic Signatures (per *E-sign*)**  
An electronic sound, symbol, or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record.
- **Electronic image**  
A file stored on a computer or computer storage device that can provide a reproduction of a document; such as a scanned image.
- **Biometric Signature:** an electronic signature incorporating some element of personal physiology, such as a voice imprint, a retinal scan, or a hand scan.
- **Private Key**  
An encryption key maintained on a computer or computer storage device that can be used to encrypt documents. The private key is made up of 100's of characters that are not meant to be human readable. Access to the private key is usually through a small password or pin number.
- **Public Key**  
An encryption key that decrypts information encrypted by a matching *private key*. Public keys are maintained on web sites or made available to anyone who needs to verify documents provided by the owner of the *private key*.
- **Public Key Encryption**  
A way of encoding something with a secret *private key*, in such a way that it can be decoded with a *public key* that does not need to stay secret.

- **Two Factor Authentication**

Using 2 of the following 3 items to *authenticate* someone;

- Something You Have (Drivers License, ATM card, Car key, ...)
- Something you know (Password, Pin Number, Mothers Maiden Name)
- Something you are (Fingerprint, Voice pattern, Retina pattern, Image)

- **Digital Certificate**

A method of using *Public Key Encryption* to provide a *public key* that includes a list of parent certificates that provide *authentication* of this *public key*

- **Trusted root Certificate**

A *digital certificate* used to issue *private/public keys* to individuals and companies that is managed by a trusted entity, such as Verisign or potentially, State or Federal government.

- **E-Sign**

Public Law 106–229 106th Congress.

“Electronic Signatures in Global and National Commerce Act”

**SEC. 101. GENERAL RULE OF VALIDITY.**

(1) a signature, contract, or other record relating to such transaction may not be denied legal effect, validity, or enforceability solely because it is in electronic form; and

(2) a contract relating to such transaction may not be denied legal effect, validity, or enforceability solely because an *electronic signature* or *electronic record* was used in its formation.

We use *signatures* to confirm that a person has agreed to or authorized a document.

We use Notary Publics to perform *Authentication* of a person *signing* a document.

Notary Publics use *Two Factor Authentication* (Drivers license and Picture) to authenticate the person signing a document.

Notary Publics provide *Two Factor Identification* (Signature and Notary Stamp) to support the authenticity of their work.

*Digital signatures* prove that someone with access to the **private key**, *and its password*, have agreed to the document, and the document *has not been modified* since signed. It *does not prove* that a particular person signed the document, unless and until *Two Factor authentication* is needed to access the *private key*, such as a smart card and a biometric fingerprint.

*Electronic Images* of a signed document can be used to reproduce a copy of the original document, but *do not prove* the image matches the original without modification.

Original Signed Documents, with a Notary Stamp, *prove* that a person signed a document, but like the electronic Image, they *do not prove* the document was unmodified after the signature was applied.

Original Signed Documents, without a Notary Stamp, *might prove* that a person signed a document, but *does not prove* the document was unmodified after the signature was applied.