TxDOT Policy on Electronic / Digital Signatures
An electronic signature is a method or process attached to or logically associated with an electronic record and executed by a person with the intent to sign an electronic record.

Electronic signature is often confused with digital signature.

Digital signature is a specific type of electronic signature.
Electronic Approval of Documents

- TxDOT has a need to electronically approve and route internal documents.
- The results of a TSD poll indicated that many parts of the agency have already implemented their own processes for electronically approving and distributing documents.
- TxDOT must have a consistent, secure, and approved process for electronic document approvals.
In December 2008, the Electronic Document Management Strategy Project team asked TxDOT’s Office of General Council to provide a policy regarding electronic approval of internal documents.

The resulting policy was published in the 2009 update to the *Information Security Manual*. 
Electronic Approval Policy

All internal TxDOT forms may accept e-mail approval from a supervisor or manager in lieu of the supervisor’s or manager’s written (ink) signature, if the form has been designed to allow electronic approval by the Office of Primary Responsibility (OPR).
Electronic Approval Policy

All internal TxDOT business processes utilizing electronic workflow, can accept electronic authorization and approval when physical signatures are not specifically required by statute. Electronic authorization and approvals must capture the employee’s user id as part of the electronic data record.
Electronic Approval

Examples of existing electronic approvals include:

- HR Online 102 personal actions
- MES transfers
- User account creation / modification (Form 1936)
What’s Missing?

Current policy addresses internal documents. What about external documents?

Other electronic signing methods
- Digital Certificates
- Scanned Signatures
- Self-signed certificates
- Other
Digital Certificates

Digital certificates are used to digitally sign and verify the authenticity of the signer of an electronic document.

TSD is the *only* trusted certificate authority (CA) in TxDOT – Only TSD can issue valid digital certificates.

TSD has been validated by VeriSign as a trusted certificate authority – digital certificates issued by TSD are trusted and recognized by most external organizations.
Self-Signed Digital Certificates

A self-signed digital certificate is an identity certificate that is signed by its own creator.

Self-signed digital certificates are not granted by a trusted certificate authority, there is no method to validate the identity of the digital signature.

Creating a self-signed certificate, for example in Adobe Acrobat, does not constitute a valid digital certificate and cannot be used to sign TxDOT documents.
Scanned Signatures

A scanned signature is a facsimile copy of a physical signature.

Cutting / pasting a scanned signature into an electronic document may not constitute a valid signature.
Electronic Signing Process

- The Office of Primary Responsibility (OPR) must approve all electronic signing processes.
- Perform a Risk Assessment to Determine Method
  - Internal / External documents
  - Security – What are the security requirements for the document
  - Cost – What is the cost of the various signing methods
  - Risk, effectiveness, and cost should drive solution
The OPR has the responsibility to ensure any proposed electronic signing process meets the departments policies.

The Office of General Counsel should be consulted for any documents that go beyond TxDOT’s walls.

The Technology Services Division’s Information Security Services branch should be included in any electronic signing assessment.
Summary

On the surface, electronically signing documents appears to be a simple process.

In fact, it is a very complicated process that must be planned and implemented.

To be successful, all parties affected must be involved in the planning and implementation.

The office of primary responsibility that is responsible for the document or data must approve the process.
E-mail approval is allowed by policy - work with the appropriate OPR to implement electronic approvals of forms / documents.
Questions?