



DIGITAL SIGNATURES

WHAT – WHY – HOW?

Ashley Anderson, PE
State Construction Office

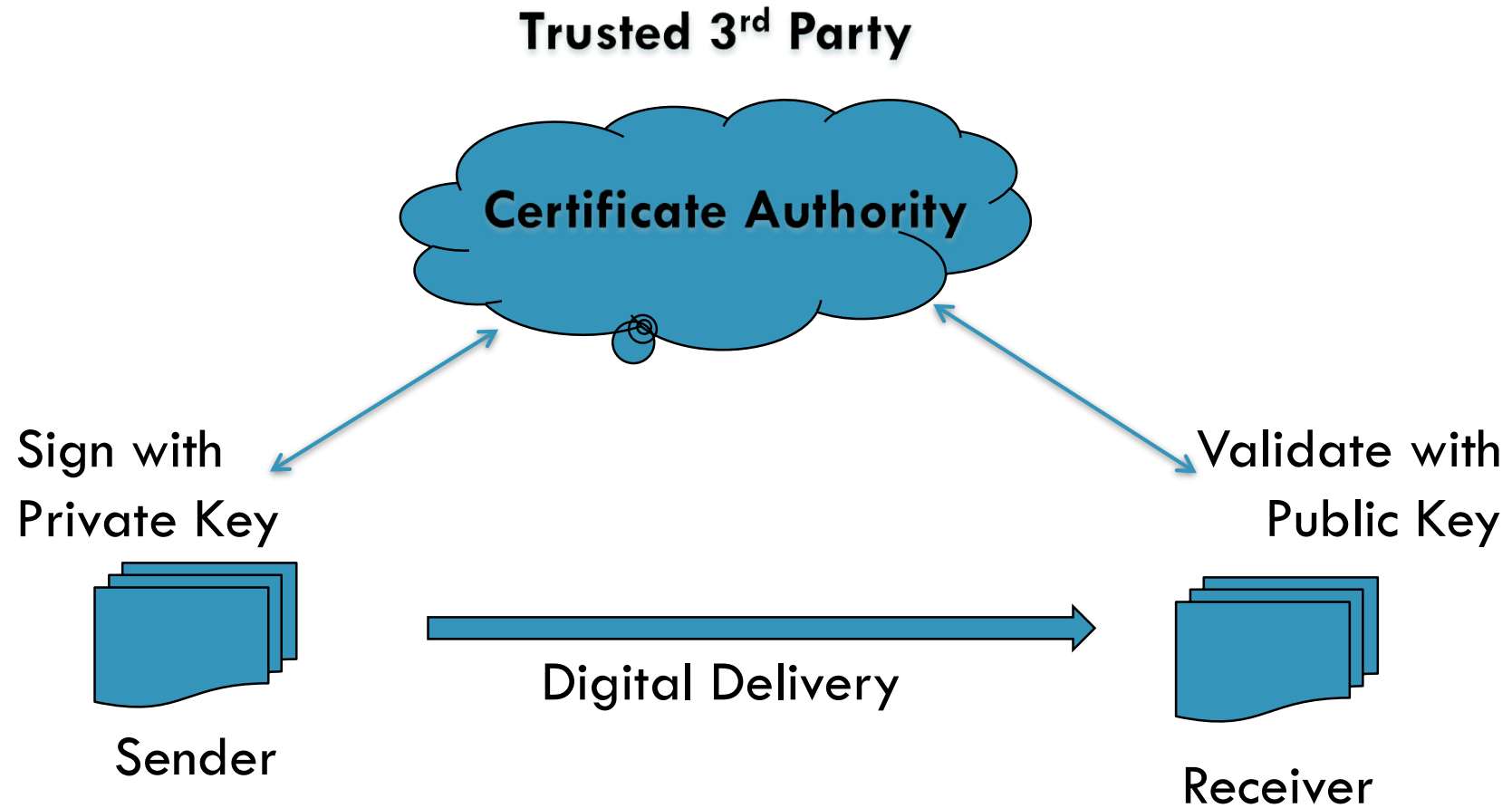
WHAT IS A DIGITAL SIGNATURE?


Section 668 of the Florida Statutes defines a digital signature as a type of electronic signature that transforms a message using an asymmetric cryptosystem such that a person having the initial message and the signature's public key can accurately determine:

- a) whether the transformation was created using the private key that corresponds to the public key
- b) whether the initial message has been altered since the transformation was made

WHAT IS A DIGITAL SIGNATURE?

What exactly does that mean?



 Ashley W Anderson 2017.11.28 12:09:04 -05'00'

Signed By

WHAT IS A DIGITAL SIGNATURE?

Signature Properties

Signature is VALID, signed by Ashley W Anderson
<ashley.anderson@dot.state.fl.us>

Signing Time: 2017/11/28 12:09:04 -05'00'

Source of Trust obtained from the Windows trusted certificate store.

Validity Summary

- The document has not been modified since this signature was applied.
- The certifier has specified that Form Fill-in, Signing and Commenting are allowed for this document. No other changes are permitted.
- The document is signed by the current user.
- Signing time is from the clock on the signer's computer.
- Signature was validated as of the signing time:
2017/11/28 12:09:04 -05'00'

Signer Info

- The path from the signer's certificate to an issuer's certificate was successfully built.
- The signer's certificate is valid and has not been revoked.

Show Signer's Certificate...

Advanced Properties... Validate Signature Close

Certificate Viewer

This dialog allows you to view the details of a certificate and its entire issuance chain. The details correspond to the selected entry.

Show all certification paths found

IdenTrust Public Sector Root
IdenTrust ACES CA 2
Ashley W Anderson <ashley.anderson@dot.state.fl.us>

Summary Details Revocation Trust Policies Legal Notice

Ashley W Anderson <ashley.anderson@dot.state.fl.us>
IdenTrust ACES Business Representative

Issued by: IdenTrust ACES CA 2
IdenTrust

Valid from: 2017/05/31 09:50:21 -05'00'

Valid to: 2019/08/23 09:50:21 -05'00'

Intended usage: Digital Signature, Non-Repudiation, Client Authentication, Email Protection, 2.5.29.37.0

Export...

i The selected certificate path is valid.

The path validation and revocation checks were done as of the signing time:
2017/11/28 12:09:04 -05'00'
Validation Model: Shell

OK

WHAT IS A DIGITAL SIGNATURE?

- A digital signature is the digital equivalent of a handwritten signature or stamped seal.
- Digital signatures have the same legal significance as traditionally wet-ink signatures.
- Digital signatures support the Department's e-Construction effort to conduct business in a paperless environment.

The Department requires each certificate:

- National Institute of Standards and Technology (NIST) assurance level of three (3) or higher
- Issued from a Department approved digital Certificate Authority.

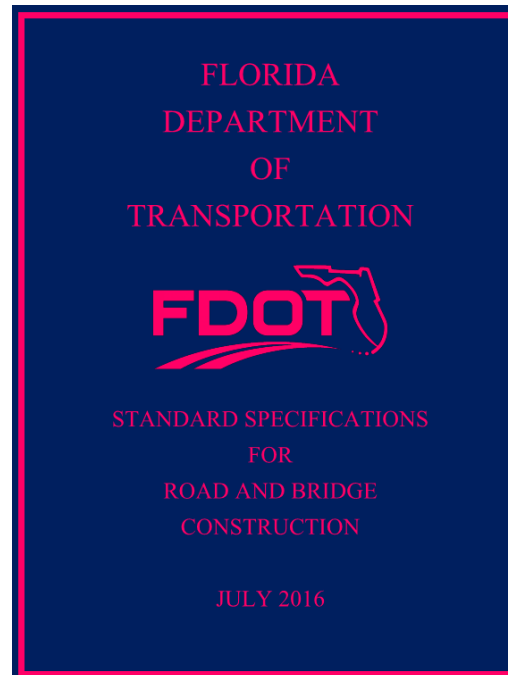
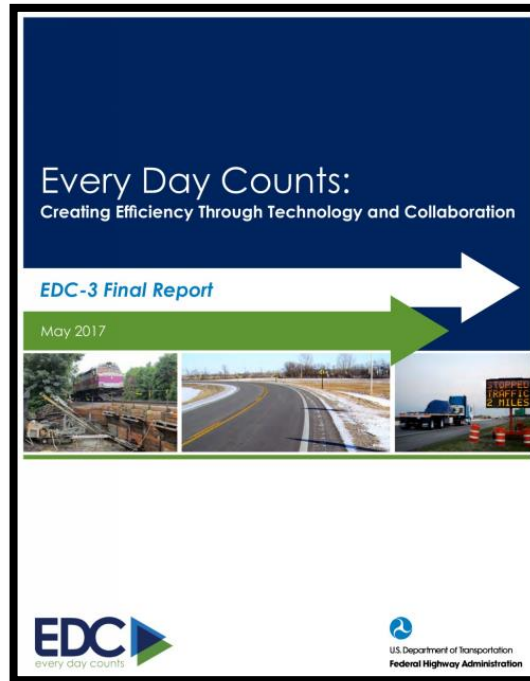
WHAT IS AN ELECTRONIC SIGNATURE?

Section 668 of the Florida Statutes defines an electronic signature as any letters, characters, or symbols, manifested by electronic or similar means, executed or adopted by a party with an intent to authenticate a writing.

ELECTRONIC
SIGNATURE



WHY DO YOU NEED A DIGITAL SIGNATURE?



- FHWA's 3rd EDC round focused on 11 technologies and practices that shorten project delivery, enhance durability and safety, and improve environmental sustainability
 - **e-Construction** – using common technology tools to improve workflow, and to save time and money
- **e-Construction** is also an AASHTO Innovation Initiative
- To support the FHWA and AASHTO initiatives, FDOT implemented **e-Construction** Specifications on all contract let July 2016 and forward
 - **Digital Signatures**

HOW DO YOU GET A DIGITAL SIGNATURE?

Trusted 3rd Party

Certificate Authority

Information Technology

Information Technology / Documents and Publications / Digital Certificates

Digital Certificates



Digital certificates used to sign documents submitted to The Department of Transportation must be acquired from one of the approved digital Certificate Authorities below and be of a National Institute of Standards and Technology (NIST) assurance level of three (3) or higher.

DigiCert, Inc.

2600 West Executive Parkway, Suite 500
Lehi, Utah 84043
(800) 896-7973
<http://www.digicert.com>

GlobalSign

Two International Drive, Suite 105
Portsmouth, New Hampshire 03801
(877) 775-4562
<http://www.globalsign.com>

IdenTrust

55 Hawthorne Street, Suite 400
San Francisco, CA 94105
(866) 433-6878
<http://www.identrust.com/fdot>

Cybertrust/Verizon

140 West Street
New York, New York 10007
(212) 395-1000
<http://www.verizonenterprise.com>

Symantec Federal Shared Service Provider

See [GSA Identity Management](#), Government Identity and Credentials section.

HOW DO YOU USE A DIGITAL CERTIFICATE?

Construction

Office of Construction / Programs & Services

Digital Signatures



All construction projects let July 2016 will be required to conduct business with the Department within a paperless environment. In order to do so, all stakeholders whom have signatory duties on projects, will be required to have a Digital Signature.

IdenTrust has been chosen by the Department as its primary Digital certificate provider but we do not mandate its use by our stakeholders, as long as Department policies are complied with. Please refer to the list of acceptable Digital Certificate Providers.

Information

[Agreement Between Parties to Utilize Digital Signatures](#)

[Electronic Form Submittals](#)

[Guidelines for Acquisition and Use of Digital Signatures](#)

[Link to Providers](#)

[Memorandum Of Understanding](#)

Guides

[Digital Signature FAQ](#)

[Employee Renewal Procedure for IdenTrust Digital Signature](#)

[Simple Digital Signatures Instructions](#)

- Exporting a Digital Certificate
- Installing and Configuring Adobe
- Creating a PDF Document from an Excel File
- Signing a PDF Document
- Validating a Signature

HOW DO YOU USE A DIGITAL CERTIFICATE?

Exporting a Digital Certificate

- Steps are included in the [Simple Digital Signature Instructions](#) on the State Construction Website.
- Why should I export my digital certificate?
 - To use it on other devices (computer, tablet, phone, etc.)
 - To have a back up in case your computer crashes or gets updated

HOW DO YOU USE A DIGITAL CERTIFICATE?

The Department recommends the use of the free Adobe Reader to digitally sign documents and forms on Department contracts.



HOW DO YOU USE A DIGITAL CERTIFICATE?

Installing and Configuring Adobe

- Steps are included in the [Simple Digital Signature Instructions](#) on the State Construction Website.
- What do I need to configure?
 - Adobe Settings (certificate store, etc.)
 - Your digital signature appearance
 - This is what your signature will look like when you apply it to a document (it may include your name, the date the document was signed, a picture of your signature, company logo or PE seal, position title, etc.)

HOW DO YOU USE A DIGITAL CERTIFICATE?

Creating a PDF Document from an Excel File

- Steps are included in the [Simple Digital Signature Instructions](#) on the State Construction Website.
- Why would I want to create a PDF from Excel?
 - To remove the excel functions and properties from your document
 - To change the file type to PDF
- You can create a PDF from many different programs by printing to PDF instead of a typical printer

HOW DO YOU USE A DIGITAL CERTIFICATE?

Signing a PDF Document

- 2 ways to sign a PDF Document
 - Many Construction forms have been updated to include signature boxes. For these, just click and sign.
 - For Construction forms that don't have a signature box, you can easily create one in Adobe, then click and sign.
 - Steps are included in the [Simple Digital Signature Instructions](#) on the State Construction Website.

HOW DO YOU USE A DIGITAL CERTIFICATE?

Validating a Signature

- Steps are included in the [Simple Digital Signature Instructions](#) on the State Construction Website.
- Why do I need to validate signatures?
 - To ensure the signature is from an approved signature authority
 - To ensure the signature was valid when the document was signed
 - To ensure the document was not altered

DIGITAL SIGNATURE RESOURCE

Construction

Office of Construction / Programs & Services

Digital Signatures



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DIGITAL SIGNATURE RESOURCE

Construction

Office of Construction / Digital Signatures

Digital Signature FAQ



In an effort to eliminate redundant questions concerning digital signatures, the State Construction Office will answer questions that arise, in order to provide general guidance for FDOT staff and stakeholders.

At this time, it is recommended to digitally sign all documents with the free **Adobe Acrobat Reader DC** or Adobe Acrobat DC to avoid invalidating digital signatures.

Click on the buttons to open the collapsible content.

Why is only Adobe Acrobat recommended for digitally signing documents and forms?

When a document is signed by someone in Bluebeam and subsequently in Adobe, it invalidates both signatures.
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When a document is signed by someone in Bluebeam and subsequently in Bluebeam, it invalidates both signatures.

What can I do to fix this, so both signatures are valid?

The website only allows specific providers and I was wondering if there was a reason Adobe Acrobat signatures were not included on the list?

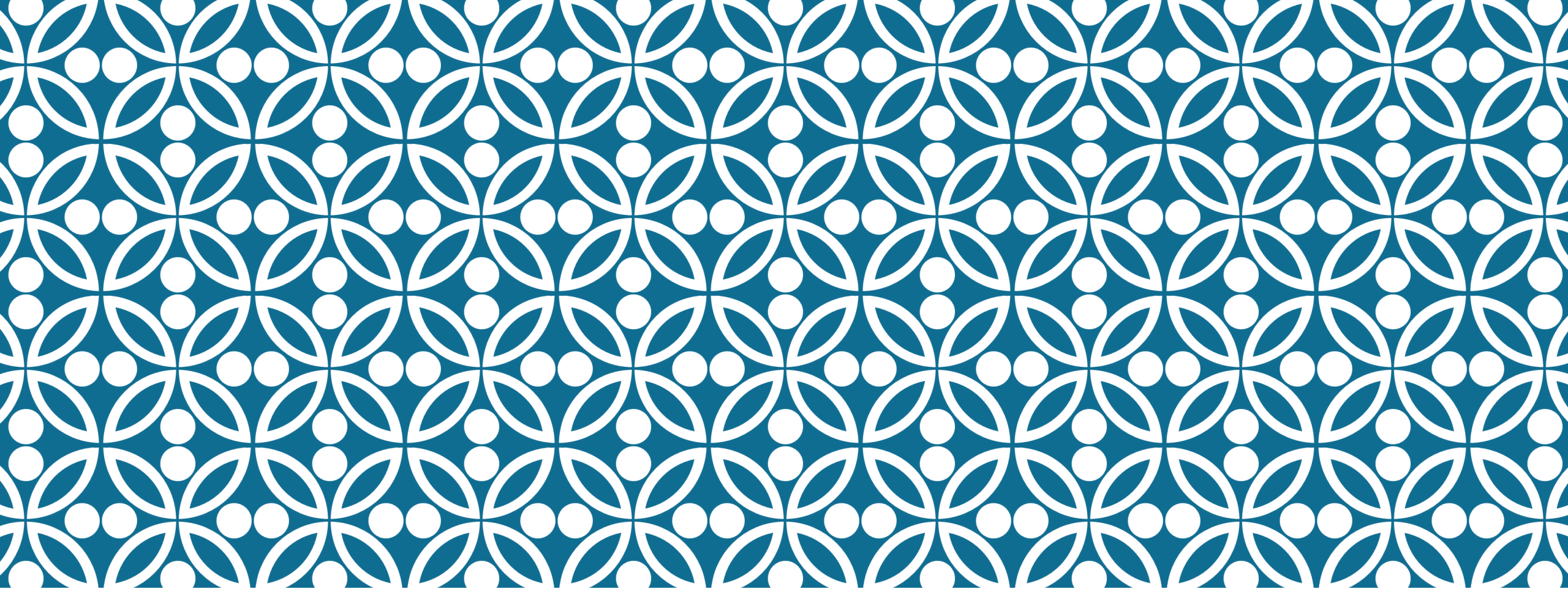
Why does the digital signature status show up as UNKNOWN?

Should I add an individual's digital signature certificate to my trusted certificates, so its status becomes valid?

I have a file with a digital signature status as Valid in Adobe, but Revoked in Bluebeam. Which is correct?

Why can't documents have both digital signatures and a wet ink signatures?

Can I use DocuSign as my digital certificate provider?



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QUESTIONS?