



Oregon Department of Transportation



# Digital Signatures For Engineering Documents

*An Update*



**Ron Singh**  
**ODOT Surveyors Conference**  
**17 March, 2009**



# A Bit of Review...





## What is a Digital Signature?

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A Digital Signature is a signature applied to a digital document which provides signer authentication, document authentication, possible document encryption, and significantly increased efficiency.





## Electronic Vs Digital Signatures

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- ❑ Often the terms “electronic signature” and “digital signature” are used interchangeably to mean the same thing.
- ❑ In the Information Security world, the two terms are distinctly different.



## Electronic Signatures

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The term “*Electronic Signature*” may include scanned images of hand written signatures; typed notations such as /s/ Jane Doe; or signature blocks on email messages, etc. without any authentication and/or encryption system included.





## Digital Signatures

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The term “*Digital Signature*” is more properly used to describe a signature system applied to an electronic document that utilizes specific technical processes to provide significant added security, authentication, and/or encryption.



# A Robust Digital Signature System

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- ❑ Must be capable of creating a signature that is:
  - Unique to the person using it
  - Capable of verification
  - Under the sole control of the person using it
  - Linked to the document in such a way that if any part of the document is altered, the digital signature is rendered invalid.



What's New...





## New Oregon Administrative Rules

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The Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) adopted the new Oregon Administrative Rules on July 8th, 2008 and filed it with the Oregon Secretary of State's Archives Division making it effective on July 9th, 2008.





## OAR 820-010-0010 (Definitions)

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- (16) "Digital Signature" means a type of electronic signature, as allowed by the ORS 84.001 to 84.061, that transforms a message through the use of an algorithm or series of algorithms that provide a key pair, private and public, for signer verification, document security and authentication.



## OAR 820-010-0620 (Official Seal)

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- (5) A digital signature, as an option to a handwritten signature in permanent ink, in accordance with ORS 84.001 to 84.061, is acceptable for final documents. The registrant will provide adequate security regarding the use of the seal and signature.
  - (a) The digital signature must be:
    - (A) Unique to the registrant using it; and
    - (B) Capable of verification; and
    - (C) Under the sole control of the registrant using it; and
    - (D) Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.
  - (b) Documents signed using a digital signature will bear the phrase “digital signature” in place of the handwritten signature.



## OAR 820-015-0010 (Processing Complaints)

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- (5) Upon request of the Board, digitally signed documents must be provided to the Board in a form that can be processed by the Board's information processing systems.



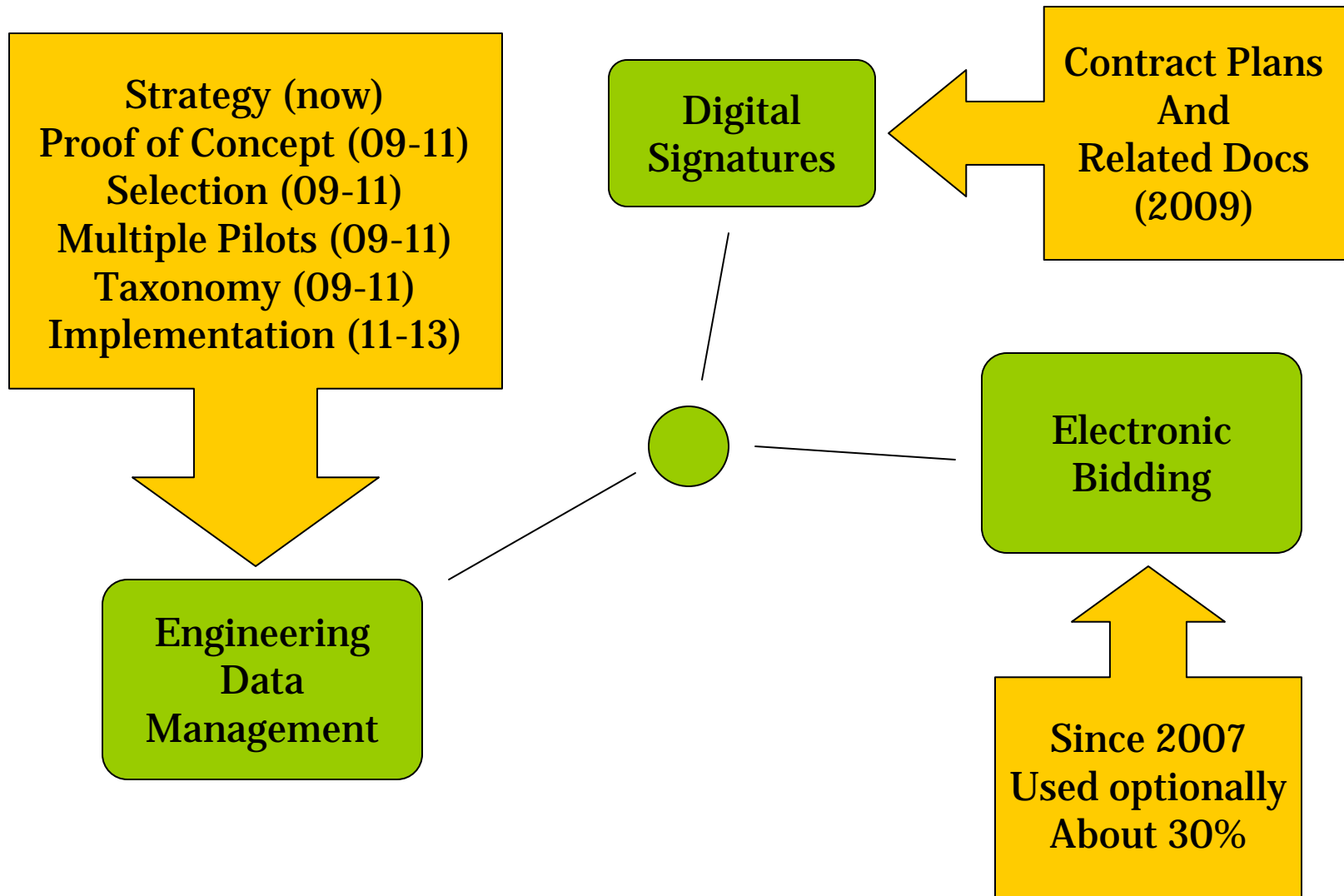
## New Digital Signature Committee

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- ❑ Charged to develop processes for digitally stamping contract plans and related documents
- ❑ Studying 2 options
  - ODOT as its own Certification Authority
  - Utilizing a 3<sup>rd</sup> party Certification Authority
- ❑ Timeline - ?

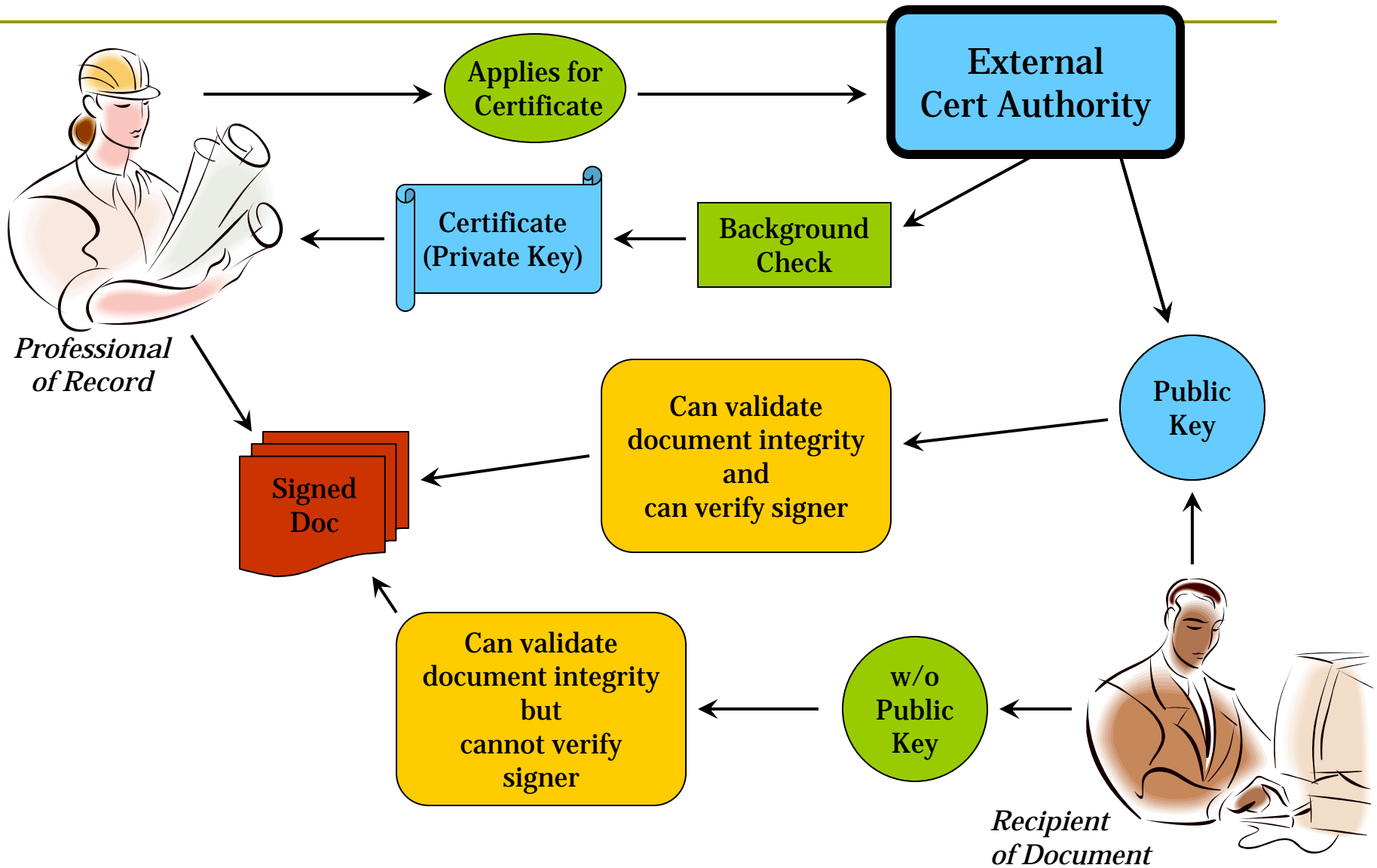


# Related Issues





# External CA - Workflow







Stay Tuned...