

Secure Your Approval, *digital signature*



Most people do not differentiate between the two concepts of electronic and digital signatures, and mostly they use the term electronic signature or e-signature. Important differences do exist and are outlined below.

An electronic signature can be as basic as a typed name or a digitized image of a handwritten signature. Consequently, e-signatures are very problematic with regards to maintain the integrity and the security, as nothing prevents one individual from typing another individual's name.

A digital signature is an electronic equivalent of an individual's signature. It authenticates the document or communication to which it is attached and validates the authenticity of the sender. Furthermore, it also confirms that the document or communication, to which it is attached, has not been tampered with, en route from the sender to the receiver. Digital signatures are based on public key infrastructure in which the signer has a private key which is an encrypted hash of his/her signature and a public key which is a digital certificate issued by a PKI authority.

Manual signature pitfalls

- Increased operational & back office overhead
- Less secure and prone to fraud
- Longer waiting times
- Legal compliancy and limited liability can be questioned
- Less efficiency and productivity
- Slower document routing

Benefits of digital signatures

- Expedites approval process of paper intense workflows.
- Location is no longer a factor for globalized businesses. Sending contracts by courier costs money and takes time. With digital signatures, contracts and other doc-

uments can be instantly signed online.

- Automates business processes - eliminates the inefficiencies and significant costs of printing, handling, mailing, scanning, and archiving paper documents.
- Graphical signature - Digital signatures look like they would on a paper document.
- Reducing costs of printing, handling, filing, mailing, faxing, scanning and archiving paper documents.
- Provides evidence of signer's identity, intent and data integrity thus guaranteeing data security and providing non-repudiation.

Why adopt digital signatures?

It is estimated that every year, 30 billion paper documents are copied or printed by US companies. When factoring the costs of copying, scanning, archiving, routing, and retrieving lost documents, each paper-based signature is estimated to cost \$6.50. According to [Co-Sign](#) customer usage statistics, the average authorized employee signs 500 documents a year at a total cost of \$3,250. Organizations are implementing digital signature solutions to:

- automate and expedite business processes
- cut operational costs
- improve efficiency and collaboration
- go green
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Environmental effects of switching to digital signature

The average signer signs just over 2 documents per workday, or 500 documents per year. These numbers equal a usage reduction of half of a tree, $\frac{3}{4}$ of a barrel of oil, and 150 pounds of carbon emissions per signer, per year.

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