



Electronically Sign Documents with Digital Signatures

**Move from a Paper-Intensive Organization to Paper-Less
by Authenticating and Signing Documents Electronically**

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Simple
Valuable
Affordable

Introduction

In recent years, most countries worldwide have been adapting legislation and regulations that recognize the legality of electronically signed documents. Today, most countries welcome the use of electronic signatures in order to help organizations move away from a paper-intensive environment.

Electronic and digital signatures are an easy-to-use, non-forgeable way to authenticate electronically signed documents and transactions, eliminating the need to print and manually sign documents. This enables organizations to complete the transition to a paperless environment. Moving to a paper-less environment expedites transactions and reduces operational costs. Electronically signed documents are non-forgeable.

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Electronically Sign Documents

Electronic signatures provide data authenticity by adding a unique piece of electronic data to the original document or transaction that validates its authenticity. An electronic signature is unique to both the original data signed and to the signer:

- ▶ If two different people sign the same data, two different electronic signatures are created.
- ▶ If the same person signs two different pieces of information, two different signatures are created.

Sign Documents Electronically with CoSign

CoSign® is a turnkey electronic signature solution. It provides its users with a non-forgeable and easy-to-use solution to electronically sign documents. CoSign integrates easily with leading user-management systems including Microsoft® Active Directory and Novell / NDS to provide its customers with fast deployment as well as a solution which does not require any management overhead.

The ability to electronically sign documents plays a crucial part in moving a paper-intensive organization to a paper-less system. Insurance companies in their underwriting and claims settlement departments, lawyers and accountants, banks in their loan departments, and purchase departments in large organizations are but a few examples of groups that create, receive and process large amounts of documents on a daily basis. The savings associated with moving to a paper-less environment can amount to hundreds of dollars per day for the organization.

Electronic documents are created and manipulated by numerous applications. However, the two most popular tools for electronic document creation and manipulation are: Microsoft Office and Adobe / Acrobat. Both of these applications have integrated electronic signatures using common interfaces to their tool-sets. Digital signatures for Microsoft Office document (Word, Excel®, etc.) or digitally signing Adobe/Acrobat PDF files is as easy as clicking on the mouse.

CoSign allows you to electronically sign documents for a large number of other applications. To verify whether a specific application integrates with CoSign, please contact your ARX representative.

Electronic Batch Signing

In organizations with heavy document traffic, workflow procedures are implemented using such applications as content-management systems or Enterprise Resource Planning (ERP) applications. When an organization decides to implement an automatic workflow procedure, documents are moved from one user to another without the need of manually routing them each time. In some cases there is a need for a signature by each user who participates in the workflow-chain. One option is for the user to open the data-entry application (i.e., MS-Word, Adobe / Acrobat, etc.), but when the workflow process is automatically performed, there is a requirement to sign the document without opening the application.

This feature is called “Batch Signing”. With batch signing, users can ask CoSign to electronically sign a specific application without opening the file. Currently this feature is implemented for MS-Word and MS-Excel files using CoSign API.

A different implementation of “Batch Signing” is in issuing electronic digitally signed invoices to customers. It is important to electronically sign an invoice in order to avoid potential fraud of the payment. Invoices would normally be prepared in an automated central process, transformed to a “standard” document format such as PDF, and then electronically signed at the end of this process.

Multiple Electronic Signatures

Documents that are submitted as part of a workflow procedure sometimes require more than one signature per document. Embedding multiple signatures on a single document is application dependent and is supported by CoSign if the application in question supports this feature. For example, CoSign can support multiple signatures for both MS-Office, as well as Adobe/Acrobat, since both these products support multiple signatures.

Electronically Signing Graphical Images

Even the most up-to-date paper-less organization needs to print documents from time to time. When trying to print electronic documents that have been electronically signed, the signature does not appear on the printed document.

CoSign solves this problem by using a graphical representation of the signature, in addition to the electronic signature. CoSign users can sign their name on an electronic pad when registering to the system. When a user decides to sign a document and presses the “Sign” button, the graphical image of the signature is captured using the electronic pad, embedded in the document and the whole document with the graphic signature is electronically signed. At the time of printing, the graphical signature is also printed, given an indication that this document had been signed on the printed copy.

The document's object that contains the graphical image cannot be copied and pasted from the original document to another one. Any change in the contents of the document will render the graphical representation invalid and a graphical indication of this invalidity will appear both on the application window and on the printed document, usually as a yellow question-mark or a red X symbol.

Graphical representation of the signature requires a special plug-in for the signing applications for both signing and verifying the signatures. This plug-in is provided by AR. Graphical representation of signatures is currently available for MS-Word and Adobe/Acrobat applications. For information about implementing graphic signatures for other applications, contact your AR representative.

Signing TIFF Images Electronically

Organizations receiving large quantities of paper documents, or in need of archiving their old documents, need to scan these documents and archive them electronically. Often, there is a need to sign scanned documents, so that they can be sent onwards. The ability to electronically sign scanned documents, could save organizations significant costs of archiving paper documents, as well as enjoy the easier access benefits of electronic storage.

CoSign can sign TIFF1 images and put the electronic signature in a special TAG. Currently TAG number 50685, "Electronic Signature" contains the electronic signature. The data signed is the actual image information and all the required fields for Grayscale, RGB, or Palette Color images (based on the actual image type) according to the TIFF Revision 6.0 standard.

A graphical signing of a TIFF image, where the graphical representation of the signature will be embedded in a pre-determined location, is planned for the next version of CoSign. The operation of this feature is done using a call to the CoSign API.

Electronically Signing Web-Based Forms

In some cases the organization decides to gather information through Web-based forms. This could be done either through a standard Web application such as an ERP module or an e-content form module, or through a tailor-made proprietary Web application.

CoSign can electronically sign these forms as well. CoSign has an easy to use API that enables Web applications to sign on behalf of the user. In this process, the Web application presents a Web form to the user. Once the user enters the data and presses the "Submit" button, the Web application receives the information, and asks for user authentication, in most cases using a user-name and password. The user-authentication information, along with the data entered in the form, are sent to CoSign, which validates the authenticity of the user, requesting the signature and then signing the form.

CoSign's support of signing web-based forms ensures a convenient way for remote users to sign data. Organizations wishing to use Web-based applications in order to eliminate the need for client-software distribution can enable users to sign information without the need to install any client software whatsoever.