



CoSign Interfacing Options

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Implementing CoSign in Existing Applications

Signatures play a crucial role in our day-to-day lives. Organizations understand that paper processes are expensive and are looking to migrate from a pen on paper signature (wet signature) to a true paperless environment. CoSign allows organizations to easily meet this goal.

The CoSign digital signature solution provides both an advanced electronic signature and a graphical image of the handwritten signature pasted on the signed document. Such a signature solution helps the organization authenticate, automate, and expedite processes; guaranteeing authenticity, integrity, and non-repudiation of documents.

Typical applications benefiting from electronic signature support include: workflow, document management, ERP, financial transactions (e.g., fund transfer), Laboratory Information Management Systems (LIMS), Engineering Change processes (ECO/ECN/ECR), reporting, archiving, purchasing, accounting (e.g., invoicing, billing, auditing), healthcare (e.g., patient consent forms), HR (e.g., reviews, expense report, time sheets), and applications that fall under various compliance requirements (e.g., SOX, HIPAA, FDA 21 part 11).

With CoSign, ARX's (Algorithmic Research) cutting-edge digital signature solution, organizations can easily shift from paper-based procedures to paperless electronic processes.

CoSign offers out-of-the-box support for many 3rd-party applications such as Microsoft® Word, Excel and InfoPath®, Adobe Acrobat®, AutoCAD®, Corel WordPerfect, and many others.

For other applications, CoSign provides interfacing options that include an API (Application Program Interface) known as SAPI® (Signature API) and SAPI Web Services. With CoSign's various interfacing options, application developers can easily integrate CoSign digital signatures into their application, and eliminate the printing, handling, faxing, mailing, and archiving of paper forms or policies.

SAPI will also be used to integrate existing document management applications and other business related applications with CoSign. SAPI Web Services is based on OASIS Digital Signature Services (DSS) standard, which is aimed at expanding application usage of digital signatures by setting definitions of how a digital signature application interacts with a centralized digital signature service (for more information, refer to www.oasis-open.org/committees/dss/ and www.oasis-open.org/committees/provision/).

Standard APIs and ARX's Signature API (SAPI)

MS CAPI, PKCS#11, and JCA are standard cryptographic APIs that can be used for integrating digital signatures within applications. These APIs are all supported out-of-the-box by CoSign.

SAPI, or Signature API, is a signature-centric set of functions programmers can use to easily enhance their applications with digital and graphical signatures, without requiring previous knowledge and experience with public-key cryptography.



Standard APIs can be used to enhance an application with digital signature support, but SAPI offers a simple and more dedicated digital signature approach. In addition to the simplicity, SAPI offers added functionality such as support for graphical signatures; that is, the ability to capture and add the graphical image of the hand-written signature (or scanned images including seals, logos, etc.) into the application.

SAPI Functionality

- ▶ Sign/validate signatures within supported file types such as PDF, TIF, and Office files
- ▶ Sign/validate application data
- ▶ Enumerate/manage certificates
- ▶ Manage graphical signatures
- ▶ Manage users (Add, Delete, etc.)...
- ▶ And more ...

SAPI Language Support

SAPI can be called through:	Supported Languages:
C DLL	C / C++
COM Object	VB Delphi .NET JavaScript
Web Services	All languages and platforms that run SOAP clients such as Java, .NET, PHP, Unix platforms, and more.



SAPI Web Services

Web Services encompass many different systems, but in common usage, the term refers to clients and servers that communicate using XML messages. A major focus of Web Services is to make functional building blocks accessible over standard Internet protocols that are independent from platforms and programming languages.

Web Services provide the leading tools to integrate between applications. In this case, SAPI Web Services enables applications to easily and independently integrate with a digital signature service provided by the CoSign appliance.

SAPI Web Services functionality corresponds to the functionality provided by SAPI, only it is packaged as SOAP calls over HTTP. The SOAP calls comply with the OASIS DSS for supplying digital signatures service, and they comply with SPML for supplying user management services.

SAPI Web Services allow CoSign to easily integrate within a Service Oriented Architecture (SOA). An SOA is a scaleable and flexible architecture that unifies business processes by structuring large applications into building blocks, or small modular functional units or services that may be used by different groups of people in and outside the company. SAPI Web Services is a building block that can be easily integrated into all SOA applications that require a digital signature functionality.

In an SOA environment independent services can be accessed without knowledge of their underlying platform implementation.

Web Services Language Support

Unlike SAPI, Web Services are platform and language independent. Web services help solve the interoperability problem by giving different applications a way to link their data.