



Document Excellence through Innovation

ACTIVEDOCS OPUS

E-SIGNATURE INTEGRATION

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Abstract: While e-Signing significantly improves all but the simplest processes requiring signatures on documents, Document Automation is the key to the best e-Signing outcomes.

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1 Summary

This whitepaper explains and compares physical signing and **e-Signing** of documents, and how these may be used to achieve business outcomes.

It outlines the general use of e-Signing in conjunction with unmanaged business activities, and with business processes managed with and without software assistance.

The white paper then considers the 'software ecosystem' that can support e-Signing, and makes the case for the inclusion of **Document Automation** in that ecosystem for the best e-Signing outcomes.

Finally, it explains how ActiveDocs' experience makes it your ideal partner for integrating e-Signing with document automation, and how the ActiveDocs Opus Document Automation solution offers the necessary features for full support and integration of e-Signing within your organization's document generation processes.



2 About e-Signing

The scope of e-Signing is broader than just the application of signatures to documents, as the use of e-Signing applications typically enables collection and use of more than just signatures for documents. This whitepaper considers the signature process primarily, extending its scope where appropriate.

2.1 Signing documents

Conventionally, a document that requires signing is presented to its signatories in physical or 'hardcopy' form, often in multiple copies, for physical signing.

Signatories in turn add their 'wet signature', usually in the form of a hand-written or stamped name or symbol, to the document or copy which is then presented to the next signatory. When all of the required signatories have added their signatures – to all of the copies, if applicable – then the document may be deemed 'signed'.

If the process involves multiple copies, each copy might be circulated in a different sequence between the signatories, complicating the process for determining the document's status.

If the process involves signatories separated by any distance, then the movement of the physical document or copies between signatories may slow the process significantly.

Technologies such as fax, print, and scan may mitigate the effect of distance while at the same time introducing the unwanted side effects of quality degradation and the proliferation of many partially completed copies. These in turn can further complicate the status-checking process.

2.2 What is e-Signing?

In its basic form, e-Signing is the process of adding signatures to documents, electronically. Such signatures may be referred to as e-Signatures, and there are two basic types.

The first type of e-Signature adds to the document an image of a 'wet signature' obtained from pen- or finger-based interactions with active-screen devices, from stored copies of such interactions, or from stored images of scans of hardcopy signatures.

The second type of e-Signature adds to the document an electronically-recognisable 'digital signature' created in a standard and accepted format using complex algorithms for identification and security.

The first is not electronically recognizable, and the second does not facilitate human recognition. Thus, e-Signing usually involves both types being applied together, and is referred to in both senses in this whitepaper.

2.3 Why use e-Signing?

Some disadvantages of physical signing processes have been mentioned above. In low-volume and/or close-proximity situations, these do not necessarily present a significant barrier to the use of physical signing.

As document volumes and the separation and number of signatories build up, the disadvantages of physical signing become significant inhibitors to timeliness and efficiency, and the risks increase.

Further challenges arise when signatories do not have access to – or simply do not want to use – the technologies that might be needed to facilitate physical signing. The process may be slowed or completely invalidated.



At some level of document volumes along with the separation, number and disposition of signatories, any costs involved with e-Signing will be outweighed by the efficiency, acceptability, and risk mitigation which it offers.

e-Signing also has uses beyond signatures and may therefore offer broader benefits to many organizations.

2.4 How is e-Signing facilitated?

e-Signing is typically facilitated with two interdependent features: the incorporation of coded markers in a document where e-Signatures are required ('markup'), and a mechanism for recognizing the markers and facilitating the application of an e-Signature ('recognition'). Both rely on software; while markup can be applied manually, it requires the use of software such as word processing to do so.

It is possible for the recognition function to work without a formalized markup process by using generic analysis to identify where e-Signing may be required in a document. In practice this is unlikely to meet process management, control, and auditability requirements, hence this whitepaper will consider only the markup-and-recognition model.

Complementing the markup-and-recognition foundations are a host of enabling technologies such as document design, workflow, email, websites, and web services. These provide the means for documents to be 'built for' e-Signing, for signatories to be identified and advised of documents requiring their attention, for signatories to apply their e-Signatures, and for the overall management of the e-Signing process including checking for completeness.

This whitepaper refers to the markup-and-recognition foundation, together with the enabling technologies, as the e-Signing framework, or simply as e-Signing.

2.5 e-Signing beyond signatures

The e-Signing framework lends itself to the application of more than just signatures to documents. The same technology that captures and inserts signatures into documents may also be used to elicit and insert other information from signatories, such as contact details, that may be deemed necessary to complete the document.

2.6 e-Signing Products

e-Signing products typically implement their own proprietary markup schemes and intra- or inter-net facilities for applying e-Signatures, supporting these fundamentals with a raft of enabling technologies. A selection of widely used e-Signing products promote themselves as follows; all trademarks and proprieties are acknowledged:

- **DocuSign** – replaces printing, faxing, scanning, and overnighting documents with the easiest, fastest, most trusted way to make every approval and decision digital. Organizations of all sizes and industries are accelerating contracts, approvals, and workflows with their Digital Transaction Management (DTM) platform and eSignature solution. It is used by more than 300,000 companies all around the world, and is available in 43 languages.
- **Adobe Sign** – part of the Adobe Document Cloud solution, is a cloud based, enterprise-class e-signature service that lets you replace paper and ink signature processes with fully automated electronic signature workflows. With it, you can easily send, sign, track, and manage signature processes using a browser or mobile device. You can also use turnkey integrations and APIs to include e-signature workflows in your enterprise apps and systems of record.



- **eSignLive** (formerly Silanis) – founded in 1992, introduced the world's first out of the box, e-signature software. It is an electronic signature solution that enables documents to be securely signed electronically on any device. Organizations use eSignLive to improve customer experience, increase productivity, and reduce errors and costs by automating workflows and enforcing business rules throughout.
- **AssureSign** – a pioneer of electronic signatures' evolution from a corporate luxury into a fundamental business need. For more than 15 years, leading enterprises have trusted them with their most essential e-signature and document transaction management. Their software is secure and easy to use, ideal for companies that execute hundreds to thousands of electronic signatures every month.



3 Incorporating e-Signing with Other Business Processes

3.1 Integration of e-Signing

For most organizations, e-Signing will be part of wider business processes involving documents that require signing; for example, generation of employment agreements or commercial contract documents.

Generally, documents tend to involve only internal parties, or combinations of internal and external parties. In limited cases, documents may only involve external parties, usually where services create documents for other people.

3.2 e-Signing with unmanaged document generation

Document generation in most organizations falls broadly into two classes: managed, and unmanaged. Unmanaged document generation refers to collections of activities that are not formally managed to comply with business rules.

Small businesses, and indeed departments of larger organizations, may not formally manage their document generation activities, but this does not exclude the use or utility of e-Signing.

It is likely, however, that e-Signing will reflect the same lack of formal management as the overall collection of activities, relying instead on individuals to 'do the right thing' with every document.

'Doing the right thing' may include anything and everything in the e-Signing process, from the e-Signature markup of the document, through sending notifications to the correct set of signatories, monitoring the process for proper completion by all involved, and ensuring that the document is correctly managed afterwards.

Failure to do the right thing at each stage will mean the failure of the process.

Unmanaged activities are not desirable but may be successful, if the individuals involved are attentive and competent to self-manage.

As with non-electronic signing, there is a point where unmanaged collections of activities **cannot provide outcomes reflecting the value of the documents to the organization**, so managed processes must be considered.

3.3 e-Signing with managed document generation

Managed document generation refers to document generation processes that are formally managed to comply with business rules. The business rules may be applied by human- or software-driven means.

In the scope of e-Signing, processes using human management alone may not provide better outcomes than the unmanaged use of e-Signing. Without software-assisted management, e-Signing continues to rely on individuals 'doing the right thing' as described above, and the likelihood of failure is the same.

3.4 e-Signing with software-assisted document generation

Combining e-Signing with software-assisted document generation allows the organization to leverage a range of software features to improve document process outcomes.

Workflow software can provide the overall framework for co-ordinating document generation, submission of documents for e-Signing, communication with signatories, and handling of completed documents.



Document Automation software can fundamentally improve document generation outcomes. It may also add value in e-Signing scenarios by facilitating the automation of specific markup for e-Signing with the same flexibility, precision, and control it applies to document creation generally.

Electronic delivery, email, records management, and document management, applications and infrastructure complete the ecosystem of software assistance for e-Signing.



4 Document Automation and e-Signing

4.1 Document Automation Software

Document Automation software can fundamentally improve document generation outcomes, primarily by facilitating the generation of documents efficiently and with correct content. It should provide flexibility, precision, and control in the document generation process.

This requires two fundamental features:

- the creation and maintenance of templates in which content, rules, data and information placeholders, and links to data sources, can be implemented to comply with the organization's business requirements
- the means of generating documents from those templates

Supporting these two fundamental features, Document Automation software may also facilitate wider management of templates, design of its own workflows and/or integration with other workflow mechanisms, and integration with other software and infrastructure, from data to applications and operating systems.

4.2 Document Automation Software support for e-Signing

Document Automation software adds significant value in e-Signing scenarios if it can:

- enable automation of templating and generation of specific markup for e-Signing with the same degree of flexibility, precision, and control applied to other automated content
- generate documents or sets of documents ready for e-Signing with complete, correct, and compliant markup and supporting content and settings
- generate related documents such as the content of emails to signatories
- provide, or at least integrate with, workflows that can:
 - deliver the required documents to the e-Signing facility
 - notify signatories
 - monitor, respond to, and notify changes of document status
 - perform any necessary retrieval, and initiate onward handling, of process-complete documents



5 ActiveDocs Support for e-Signing

ActiveDocs is a leading Document Automation software provider. We apply many decades of collective experience and customer interaction to the development and refinement of our software and services, making us your perfect partner for document automation and for combining document automation with e-Signing.

ActiveDocs Opus is a leading Document Automation product with an extensive feature set and designed-in low-code integration capabilities that make it the perfect complement to your chosen e-Signing system. Figure 1 Illustrates how e-Signing workflows can be integrated with ActiveDocs Opus.

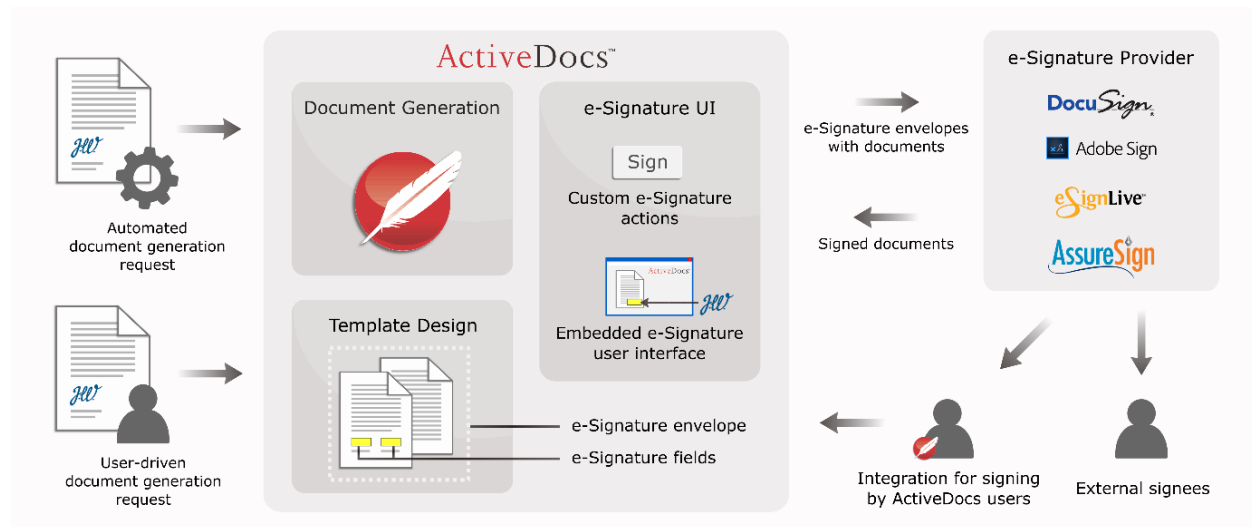


FIGURE 1: INTEGRATION OF E-SIGNATURE PROVIDERS WITH ACTIVEDOCS

5.1 ActiveDocs Opus Template Design

The ActiveDocs Opus template design toolset, ActiveDocs Opus Designer, facilitates the design and management of e-Signature markup using its existing template design functionality. Markup that is common across multiple document types and templates can be maintained at a single point of origin using existing functionality.

ActiveDocs Opus security, Version Control, advanced publishing control, and integrated Design Approval by subject matter experts, ensure that auditing and compliance of markup is second to none.

ActiveDocs Opus Designer embeds full and flexible support for generation of Document Sets, which in turn supports single-session generation of multiple documents requiring e-Signature together with related email body content for signatory notification.

5.2 ActiveDocs Opus Document Generation

ActiveDocs Opus generates documents in User-Driven Mode from user input via the browser-hosted Document Wizard, or in Automated Mode from instructions and data provided by other applications to its web services. These modes may be licensed independently and may co-exist, and in both modes the composition of e-Signing markup can be determined, controlled, and adjusted dynamically as required.

ActiveDocs Opus Document Generation provides full and flexible support for Document Set generation.



5.3 ActiveDocs Opus Workflow and Delivery

The ActiveDocs Opus Workflow and Delivery engines support e-Signing by enabling the post-generation control of approval, finalization, and delivery of documents and sets of documents, including any required separation and combining of documents for email body content and attachments, and delivery of marked-up documents to e-Signing services.

ActiveDocs Opus Workflow and Delivery support approval, finalization, delivery, and storage. They easily integrate with document management services, and provide full and flexible support for Document Sets.

ActiveDocs Opus Workflows are uniquely dynamic, and can be adjusted according to values or combinations of values used in documents, as required.

5.4 ActiveDocs Opus connection to e-Signing

ActiveDocs Opus simply connects to e-Signing services as Delivery destinations for the documents, utilizing the product's designed-in and low-code integration with delivery to Web Services.

Open integration with web services for document delivery means ActiveDocs Opus can interact with e-Signing services using industry-standard techniques, and is therefore 'service-agnostic'.

ActiveDocs Opus workflows deliver documents automatically or by manual request to the e-Signing service. When signing is complete, the documents can be retrieved and stored according to the workflow's settings.

5.5 ActiveDocs Opus Custom Actions

ActiveDocs Opus Custom Actions allow specific actions to be started by customizable buttons. Custom Actions are made available on the product's Document Actions page associated with any document or Document Set.

Custom Actions are configurable to only display to users with correct permissions and/or for documents of a specified status. Custom actions can be designed to integrate with e-Signing, and there are two common examples:

- a button that will send documents to the e-Signature provider for external signature gathering
- a button to redirect the internal ActiveDocs user to the e-Signature site for internal signing, embedding the signing process into the ActiveDocs workflow.

ActiveDocs Opus Custom Actions are fully compatible with Document Sets.

5.6 ActiveDocs Opus Document Status

ActiveDocs Opus stores a Document Status that can be used to track the status of documents. e-Signing workflows typically synchronize with the e-Signing service to allow the document status to be updated.

The Document Status is shown on the document's or Document Set's Document Actions page, and can be used to control the visibility of Custom Actions.

5.7 ActiveDocs Opus and e-Signing General Benefits

- Seamless integration of e-Signing activities into document creation workflow
- All-online processing creates efficiencies of time, effort, and physical resources
- Faster document processes, with both internal and external business parties



- ActiveDocs Opus interacts with e-Signing services to create, deliver, e-Sign, approve, retrieve, and store documents and Document Sets using standard features for easier integration and implementation



6 Conclusion

e-Signing is an effective and efficient means of acquiring signatures, including digital signatures, for documents. By removing inconvenient manual processes and encouraging efficiency, e-Signing provides significant advantages over physical signing, in all but the simplest scenarios.

Integrating e-Signing as part of software-assisted document generation processes should provide the best outcomes for most organizations.

Document Automation should have a role in document generation processes for a range of reasons, but especially in relation to e-Signing by adding flexibility, precision, and control to markup and handling of documents.

The aspects of Document Automation that most directly determine the effectiveness of e-Signing are template design, document generation, and workflow.

These set the basis for the quality of markup, the scope of document types and associations, and the integrity and usability of integration with e-Signing.

The template design, document generation, and integration capabilities of ActiveDocs Opus make it an excellent choice for document automation generally, and with e-Signing specifically.