

Electronic Signature Capture

Eliminate Paper and Increase Workflow Efficiency



The CSC Group

E-Signature - Eliminate Paper and Increase Workflow Efficiency

INTRODUCTION

Today's businesses are always looking for new ways to eliminate paper, increase workflow efficiency, and boost customer service levels. Electronic **image capture** has helped many businesses achieve these goals by eliminating the time and resource needed to handle paper documents. Yet all too often documents still need to be printed to obtain a signature or initials. These documents then have to be digitally scanned or copied a second time. By replacing this time-consuming manual step with **electronic signature capture**, businesses can improve their overall ROI through enhanced process efficiencies. This document will define what electronic signature capture is – both from a technological and legal perspective – how it works, and what issues should be considered when adding E-Signature to business workflow. A Credit Union will be used as an example to illustrate this process, followed by key benefits and more applications for use in other industries.

E-SIGNATURE IS A CAPTURE SOLUTION

Electronic Signature (E-Signature) is capture software that allows people to sign electronic documents with a handwritten signature, and permanently embed their signatures in documents. The E-Signature solution presented herein has been designed to act as a *virtual* printer, allowing print streams to be captured via TCP/IP printing from any host system, whether that host is a user's PC or a virtual windows session running on that PC. The user and host system are configured to the appropriate IP address and port for using E-Signature.

During a transaction, the print stream of an original computer-generated document is captured and a view is presented to the user for adding signatures and other marks. Transactions can be configured to prompt automatically or manually for an E-Signature. A pen-based signature pad electronically captures a handwritten signature and the signature is displayed on-screen in the document. At this point, the signature has not yet been "burned" or embedded in the document. If desired, the document with signature may be printed and reviewed before final acceptance.

Indexing is done automatically, manually or a combination of both depending on the application. For example a teller transaction would want all indexing done automatically with the data always in a fixed location, but a loan officer may want form field prompts to fill in a description of what a loan is for or what the dollar amount of the loan is. Once the

document has been finalized, the indexed data is captured and the signed e-document is filed into the image repository. At this point the signature has been permanently "burned" into the document and cannot be altered, removed or transferred to another document.

For ease of support, it is recommended that a single E-Signature technology be standardized on. If there is sufficient business justification to use multiple electronic signature technologies, then compatible technologies should be chosen so that a single pad can be used. In addition to choosing single pad technology, using a single image repository will make for more efficient retrieval.

GOVERNING LEGISLATION

In essence, the legal definition of E-Signature is a digital or electronic method executed or adopted by a party with the intent to be bound by or to authenticate a record, which is unique to the person using it, capable of verification, under the sole control of the person using it, and linked to data in such a manner that if the data is changed the digital signature or electronic signature is rendered invalid.

The Electronic Signatures in Global National Commerce Act (E-SIGN) became effective October 1, 2000 and positions E-Signature systems as the standard for signed business documents. The Act defines an electronic signature as "data in an electronic form, attached to or logically associated with an electronic record, and executed or adopted by a person or agent of a person, with the intent to sign a contract, agreement or record."¹

Additionally, many individual states² have a Uniform Electronic Transactions Act (UETA), some of which have been in place since 1999. Each state's UETA is similar to E-SIGN in that the same legal acceptance

is given to electronically created records and signatures as paper records and ink signatures, but a UETA also outlines parameters for the creation of a valid electronic signature and the maintenance of electronic documents.

Why both? UETA validates electronic transactions at the state level. However, not all states have adopted a UETA. Moreover, each state's version varies to some extent from the model statute. E-SIGN was enacted to validate electronic transactions at the national and global level. As a federal law, to ensure national uniformity in the treatment of

- *If done properly, adding E-Signature can be virtually transparent and not disrupt existing workflow.*
- *The entire scanning and indexing process can be eliminated.*
- *Documents can be online in minutes rather than days.*

¹ S.761 Electronic Records and Signatures in Global and National Commerce Act (E-SIGN)
² As of December 4 2002, 41 states have enacted a UETA.

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electronic transactions, E-SIGN closely parallels UETA's model statute and provides expressly that it (1) preempts both a state's version of UETA to the extent it is inconsistent with E-SIGN, and (2) other inconsistent state law. The laws and regulations differ, but there are several clear patterns:

- Electronic signatures are legally binding.
- They are "technology neutral".
- E-SIGN confirms that states must allow the use of electronic signatures if the two parties involved agree to this method of signing. Each state is empowered to legislate its own electric signature requirements, recognizing that in order to be legally binding it must be:
 - Unique to the person using it
 - Capable of verification
 - Under the sole control of the person using it
 - Linked to data in such a way that if the data is changed, the signature is rendered invalid.

E-SIGNATURE INCREASES WORKFLOW EFFICIENCY

Enabling document retrieval from any location comes with costs, mainly in terms of time needed for people to scan and index documents. When increased demands are placed on the document management system, such as adding new document types to the electronic mix, it becomes a very burdensome process to handle. One way to meet these new demands would be to increase the number of people and the number and speed of scanners available. But this soon becomes too costly in terms of labor and space. Rather than allocate more people and scanning hardware, adding new electronic signature technology can keep the documents in electronic form and eliminate the need to produce a piece of paper. To illustrate, the following highlights key issues to consider when **deploying E-Signature in a Credit Union**.

Identify Goals. It would be impractical to try and electronically capture every transaction, or potentially every piece of paper associated with an otherwise electronically captured transaction. The goal therefore, should be to eliminate the *majority* of paper so that the paper-based exceptions can be managed through the current manual scanning and indexing process without any increase in headcount or hardware. With regard to process, the guiding theme is member service and the overall goal is member throughput. If done properly, adding E-Signature into the transaction process can be virtually transparent without introducing any significant delays into the existing process.

Evaluate Existing Network. The network plays a significant role in determining how quickly image files can be saved, retrieved or routed, and is a critical component of success. In preparing for any project implementation, a thorough review of the current network configuration is needed to determine bandwidth capacity and usage. It is critical to understand the

current usage parameters in order to best assess what if any additional capacity is needed prior to implementing E-Signature and imaging solutions. The solution chosen must be compatible with an organization's existing technology and infrastructure, and in particular be able to handle the increased network traffic.

Address Privacy and Security Concerns. Adding electronic signatures to the document management process creates new privacy and security concerns. Organizations must determine the suitability³ of the technology to meet its own internal compliance, security and privacy controls. The solution chosen should be designed so that the captured signature is never stored as a separate file. The signature should be captured and placed in the document, locking them together so neither can be altered. Once the overall document is accepted into the imaging system, the signature is now permanently part of the document image creating a new single image file. This ensures that a member's signature cannot be used for any other purpose other than his/her intended purpose.

Manage The Change. Another issue that will impact overall success is how well users adapt to and accept the change, in other words how well that change gets managed throughout the entire implementation process. Many people, by their very nature, resist change. Helping them see the benefits in using the new technology and understanding how their jobs will be easier can help pave the way to acceptance and ultimately improve customer service levels.

Implement: A Phased-In Approach Works Best. Executing a solution of this magnitude could be daunting to some, therefore a phased-in approach is recommended. By rolling out the new technology in phases, each stage and associated change can be managed efficiently allowing for the lessons learned along the way to be applied to subsequent stages.

Phase I. Daily Teller Work. The first phase should be daily teller work. Daily teller work is the single largest source of image-based transactions in credit unions and will create the biggest overall gain for the enterprise. Since teller work is already divided among the branches, this phase should be divided into sub-phases. A credit union should begin implementation in a small branch since this size location will undoubtedly have a lower transaction volume. Since the transaction volume is lower, the increased volume from deploying E-Signature will have less of an impact on the network, allowing time to measure the increased traffic and properly refine the process for larger branch implementation.

3 The responsibility of compliance with local, state and federal regulatory guidelines rests with end user organizations.

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Phase II. Signature Cards. After teller work is implemented, converting signature cards to an all-electronic format is the logical second step. This involves adding signature pads to all CSR (Customer Service Rep) or MSR (Member Service Rep) stations throughout the branch system. Like the first phase, this should be split into sub-phases by branch size. By implementing the signature card portion of this project, tellers will have immediate access to the cards once an account is opened.

Phase III. Consumer Lending. Adding signature pads to the MSR stations sets up phase three. Again, this should be handled in sub-phases by branch. As mentioned earlier, it is best to standardize on single electronic signature technology for ease of support. If there is sufficient justification to use multiple electronic signature technologies, it is highly recommended that compatible technologies be chosen so that a single pad and single image repository can be used. Having electronic documents stored in different repositories is akin to storing paper in two different places, forcing the user to determine which repository needs to be accessed, and requires them to be fluent in the retrieval methods of each.

By applying signatures to documents electronically, there is no need to process a paper document, therefore eliminating paper all together. If done properly, adding electronic signature technology can be virtually transparent and not disrupt the existing workflow. The cost savings would be realized on the back end where all post-transaction processing can be eliminated. By keeping everything in electronic form, the entire scanning and indexing process is no longer needed. Capturing documents at the time of transaction can reduce delays to online availability from days to minutes.

KEY BENEFITS

Automated Electronic Capture of Signed Teller and Loan Transactions. Document prep before scanning can be eliminated, printing costs decreased, customer service levels increased.

Instant Access to Information. When used with document imaging, E-signature allows for instant access to legally signed documents, contracts, and receipts. Electronically signed documents eliminate duplication costs, multi-part forms, workflow inefficiencies and unnecessary storage.

Significant Reduction in Expense. In organizations that process a lot of signed paper contracts and forms, electronic signatures can significantly reduce costs. According to The

Wall Street Journal⁴, the financial services industry – banks, insurance, and brokers – has been an early adaptor of E-Signature technology, realizing significant cost savings that can be attributed to automated electronic documents:

- Chase Manhattan Bank and Ginnie Mae capture and verify electronic submission/processing of mortgages.
- Prudential USA reported its deployment to 6,000 of their insurance field agents using laptops allowed automating multiple signature enrollment processes for new insurance applications with a two-thirds reduction in processing time, 60 minutes down to 20 minutes, and a 93% acceptance among users.
- Another large insurance company saved \$30 million on a million-and-a-half contracts over 1½ years. An insurance contract has on average three signatures that have to be collected from a customer as well as other approvals throughout the company. The average cost of \$32 per form was reduced to under \$2.

Speeds Up Business Processes. When used as part of a document management system, E-Signature speeds up business processes and improves productivity by having executed documents and contracts readily available for viewing across a network or across the internet.

Satisfies E-Privacy Issues. By using a signature capture pad, people can still sign in a manner they are most accustomed to – with a pen – and in so doing, establish intent to sign. Because a signature is then locked to a

single document and cannot be changed without the individual's permission, he/she ultimately maintains control over its use.

APPLICATIONS⁵

E-Signatures can be used in any business where signatures are needed and documents are captured electronically:

1. **Teller Transactions.** Signature cards, customer applications, IRA documents, CD withdrawal/deposits, end-of-day balances, deposits/withdrawals, account transfers, loan payments, GL disbursements; to/from vault, teller-to-teller, money orders, cashier checks, change of address forms, etc.
2. **Lending Services.** Automate contracts, forms and enrollment. Rather than printing loan packages,

“An insurance contract, on average, collects three signatures from a customer as well as other approvals throughout the company. The average cost of \$32 per form was reduced to under \$2.”

⁴ “The Wall Street Transcript”. Interview with Guido DiGregorio, Chairman, President and CEO, Communication Intelligence Corporation. July 1, 2002. These examples are using E-Signature with biometrics technology for identity verification.

⁵ Includes electronic digital signature capture examples as listed on Topaz Systems website.

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documents can be kept in electronic form throughout the process, allowing for online retrievals from any location.

3. **Insurance.** Automate contracts, forms and plan enrollments.
4. **Healthcare.** Automate patient check-ins, notice of privacy practice, consent forms, ABNs, scrips, and EMRs.
5. **Human Resources.** Capture applications and records, insurance enrollments and other authorizations.
6. **Pharmacies.** Automate the prescription process through customer pickup.
7. **Government Agencies.** Automate ID cards, badges, etc.
8. **Web-Enabled Viewing.** View standard signature-ready contracts and forms anytime, anywhere.

SUMMARY

- E-Signatures can be used anywhere signatures are needed and documents are captured electronically. Adding electronic signature technology can keep the documents in electronic form, eliminate paper and increase workflow efficiency.
- After a signed document is accepted and the index data is captured, it is filed in the image repository. Because the signature is now permanently part of the document, it cannot be altered, removed or transferred to another document.
- Legislation defines E-Signature as a digital or electronic method executed or adopted by a party with the intent to be bound by or to authenticate a record, which is unique to the person using it, capable of verification, under the sole control of the person using it, and linked to data in

such a manner that if the data is changed the digital signature or electronic signature is rendered invalid.

- When implementing E-Signature as part of a document management system, a phased-in approach is recommended. Issues to address include: identifying goals, evaluating existing network configuration and capabilities, addressing privacy and security concerns, and assuring that the changes in workflow are effectively managed.
- The key benefits of using E-Signature as part of a document management system include automated capture of signed transactions, instant access to information, reduced expense, faster workflow and improved productivity. E-privacy concerns were also addressed.

RESOURCES

1. Laurell, Sean T. CDIA+ and Garry S. Kolb, CDIA+, *“Electronic Signature Study and Findings for Eastern Financial Florida Credit Union”*. March 2003. The CSC Group. All rights reserved.
2. Electronic digital signature capture examples, Topaz Systems Inc., <http://www.topazsystems.com/Software/faq.htm#SA>
3. S.761 Electronic Records and Signatures in Global and National Commerce Act (E-SIGN) Oct. 1, 2000
4. UETA and Electronic Signatures Legislation. National Conference of State Legislatures. June 6, 2002
5. Uniform Electronic Transactions Act of 1999 State-By-State Comparison Table. ITEC Law Alert, McBride Baker & Coles. <http://www.mbc.com/ecommerce.html>