

Digital Signature Solution Frees the People (to sign Electronic Medical Records)

Overview

It would probably be a stretch to compare Beth Liette to the legendary Joan of Arc, since Beth didn't lead her nation's people in battle. However, her business decisions did empower the medical staff at the hospital to leave their desks. And she's a fan of French toast.

Beth Liette, the Records Director at a leading pediatric hospital, was responsible for finding a mobile signing capability for the organization's [electronic medical records](#), enabling the medical staff to sign documentation from multiple locations throughout the hospital. While the organization had an electronic medical records process in place, its lack of an electronic signing solution was forcing the organization to reintroduce paper into the workflow for signing purposes, essentially offsetting the benefits the electronic medical records provided in expedited workflow and cost reduction. Additionally, the use of a printer, scanner and fax in the existing paper-based authorization process forced the signer to work from an office, an impractical scenario for the hospital's mobile medical staff.

Signing Electronic Documentation – A Battle for Efficiency

In addition to forcing the organization to reintroduce paper into the workflow, NCH's initial signing process required the medical staff to sign records in their offices, reducing the time available to interact with their patients. Beth sought a solution that would allow the medical staff to sign documentation from multiple locations throughout the hospital, expedite documentation processing, reduce workflow costs, and maintain [HIPAA compliance](#). The solution also needed to be verifiable by the external parties and partners that the hospital sent signed documentation to.

In order to decide upon the most effective solution for the hospital's needs, Beth performed a review of NCH's workflow processes. During her review she established that the most active 25 Doctors were signing approximately 30 documents per workday each and that the average associated **costs per document worked out to approximately \$6** in printing, scanning, archiving and searching/replacing the occasional lost form. With 600 signatures per signer each month, multiplied by \$6 per document, **each signer was costing the hospital approximately \$43,000 a year**. Beth understood that by offering electronic signing capability, she could eliminate the substantial costs associated with a paper-based workflow and speed up documentation processing.

Digital Signatures – Turning the Tide

As Beth reviewed the options available to NCH, she saw that a [digital signature](#) solution best addressed the hospital's specific requirements. A standards-based digital signature solution would satisfy the HIPAA regulations calling for the hospital to ensure the confidentiality and integrity of the electronic health information it manages. In addition, a standards-based solution would allow third parties to validate the signatures, improving the external collaboration the hospital maintained with its paper-based signing approach.

Once digital signatures were defined as the most relevant solution for the hospital's needs, Beth began researching the various solutions available. As a standards-based solution with Public Key Infrastructure (PKI)¹ underpinnings, the [CoSign® digital signature solution](#) immediately became a front-runner in Beth's considerations due to its ability to deploy without affecting the pre-existing digital certificate initiative (credentialing approach) that the hospital had in place. Discussions with ARX revealed how the CoSign CA (Certificate Authority) would actually complement the enterprise-wide vision for a digital certificate initiative via its scalability. Eventually, Beth became convinced that implementing CoSign and utilizing a CoSign CA would actually simplify their enterprise-wide initiative and facilitate the hospital's collaboration with external parties.

An equally important feature CoSign provided was its ability to embed signature records directly into signed documents, enabling every captured signature to travel with the document. This Portable Signature Format (CoSign PSF™) enabled anyone to verify and retain proof of identity, intent, and document integrity without costly, complicated, or proprietary software. Such a scenario would allow the hospital's external partners to easily validate its signed documentation as easily as they had in NCH's original process.

Finally, Beth also realized that CoSign's ability to support any user authentication scheme including LDAP, Active Directory®, or PKI mechanisms would be a significant benefit to the hospital and simplify enrollment and maintenance of signers.

CoSign – The Freedom to Get Out, Interact with the People, and Save a Lot of Money

With the knowledge that she could easily increase the number of users at a later date, the initial CoSign deployment Beth designed focused on a group of 25 hospital physicians that most frequently approved documentation at the hospital. With each physician's paper-based signatures costing the hospital \$43,000 in paper-related costs each year, Beth's decision to implement the **CoSign digital signature solution saved the hospital over \$1M dollars** in the first year of implementation alone. Moreover, the hospital **returned its investment in the first two months** of its implementation.

¹ The PKI technology in a digital signature is used to establish that the individual signatory is indeed responsible for the signature in the message, and that the signer approves the content of the document. PKI technology is well established, with over 30 years of industry use, and is accepted as the only standard method capable of guaranteeing an electronic document has not been altered. Any changes made to the document after it is signed invalidate the digital signature, thereby protecting against forgery, ensuring non-repudiation, and securing the documentation.



In order to address the medical staff's need for a signing solution that allowed for mobility and proximity to their patients, Beth designed the CoSign digital signature solution for deployment via strategically placed kiosks throughout the hospital's facilities. Each kiosk housed a shared terminal that allowed multiple users to access the necessary medical documentation and sign with their individual CoSign digital signature. This strategy freed the physicians from the confines of their desktops, allowing them the flexibility to digitally sign documentation within the closest proximity possible to the patients they were treating. For her work, Joan of Arc was canonized as one of France's patron saints. Beth is satisfied with a good parking space at the hospital.

About CoSign Digital Signatures

ARX (Algorithmic Research) is a global provider of cost-efficient digital signature solutions for industries such as life sciences, healthcare, government, engineering, and energy. ARX's CoSign digital signature solution automates approvals affordably in a compliant manner, allowing organizations to go paperless, expedite business processes and save costs. CoSign is the only digital signature solution that is seamlessly integrated with Microsoft SharePoint and other popular DM/ECM solutions. CoSign signatures are globally accepted by external partners without the need for proprietary-validation software. CoSign is also centrally managed through the organization's user directory for reliable control of signature privileges, and ease of use and administration. Learn more about the CoSign [digital signature](#) solution.

CoSign is a registered trademark of Algorithmic Research, Ltd. All other trade names and trademarks are the property of their respective holders.

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