ELECTRONIC e-SIGNATURES
for Canadian Credit Unions

With Real-Time Biometric Authentication

ACCELERATION
SPEED
RHYTHM

CREDIT UNIONS ARE PROGRESSIVELY TURNING TO E-SIGNATURES
TO CUT COSTS AND PROVIDE BETTER SERVICE TO MEMBERS.

Convenience for members-sign from any device, anywhere

Efficiency and reduced costs for the Credit Union from the transition from paper to paperless

FRIENDLY, EFFICIENT SERVICE HAS BEEN THE CREDIT UNION STRENGTH AND DIFFERENTIATOR

ARE YOU MAINTAINING YOUR CLIENT FOCUSED SERVICE?

With Electronic Signatures, Accounts can now be opened faster and withdrawals completed more efficiently.

E-Signatures offer a competitive advantage and builds brand loyalty

- The Canadian population is nearing the tipping point of becoming a Smartphone majority.
- Close to 50% of all Canadians now own a Smartphone-Ipsos Reid poll 2013
- 21% now report using a Tablet
- iPad and ANDROID devices equipped with a pressure-sensitive pen can join in
- Complete and sign legal documents from anywhere

Our technology dramatically reduces:

costs | printing | faxing | courier and postal services | shredding | scanning | storage – archiving and retrieval |processing time |

…..and its part of your **GREEN** program.

ROI's of less than 12 months have been reported…….

Signature Capture
Using a Signature Pad, Tablet
PC, Smartcard, Token, etc.

E-SIGNATURES CAN TRANSFORM AND ENHANCE YOUR CLIENT INTERFACE FOR MANY CREDIT UNION SERVICES

On-Line Mortgage Applications

Consumer Loans

Small Business Loans

Lines of Credit

Student Loans

Auto Loans
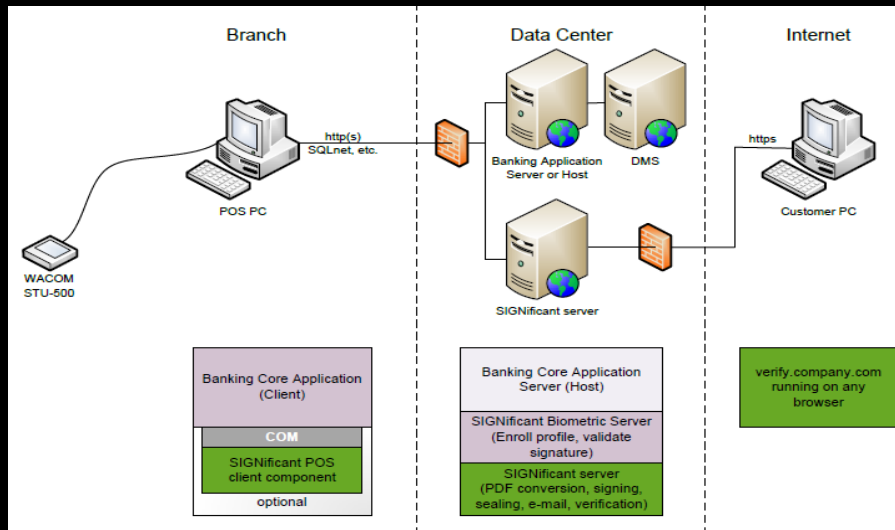
New Member Applications

Credit Card Applications

Disclosure Delivery

Leasing Agreements

Retail Merchant Contracts

TECHNICAL SYSTEM ARCHITECTURE

HTML2PDF - html to PDF conversion for any kind of html document

Send Email - Send out an email to the customer with the electronically signed document (To, From, Subject, Body, and Attachment)

FileTools Copy -To copy documents to a Document Store Delete - Used to delete documents once they are stored in the document management system

Biometric Service

Enroll Users/profiles, Validate signatures in real-time

- Display PDF document with signature fields according to a template definition (for one or many signatures).

- The template definition includes: - A search keyword, that triggers the location where the signature is placed - The offset from the found text where the signature is placed - The size and help text of the signature

- Once all the signatures are placed on the documents, a callback URL is called so the calling system can proceed

The complete Frontend can also be implemented within a rich client easily by using SIGNificant's extended web-services.

WHAT IS AN ELECTRONIC SIGNATURE?

The US Federal ESIGN law defines an electronic signature as "an electronic sound, symbol, or process attached to, or associated with, a contract or other record and adopted by a person with the intent to sign a record".

It is a broad legal concept but specifically requires an 'INTENT' to sign.

E-SIGNATURE AND THE LAW

Common law allows just about anything as a signature that can be shown to represent the appropriate intention. The harder question will come when the question is not whether one has a signature but who signed.

Personal Information Protection and Electronic Documents Act (Canada)

Known as PIPEDA, Canada's electronic signature law specifies how business must handle consumer data to ensure privacy and security

Canadian Case Law

E-signatures are valid on Provincial Offence tickets: City of London v. Caza, 2010 ONSC 1548 (CanLII)

A type-written signature can be valid: ING Insurance Company of Canada v. Jetty, 2010 ONSC 1091 (CanLII)

Canadian Real Estate Association to implement e-Signatures similar to their US counterparts

The E-SIGN Act is the premier federal law ensuring the legality of documents executed with electronic signatures in the U.S.

xyzmo SIGNificant's products offer com-pliancy with the following :

- ESIGN Act (Electronic Signatures in Global and National Commerce Act)
- UETA (Uniform Electronic Transactions Act) & SOX (Sarbanes-Oxley Act)

Although the E-SIGN Act is quite comprehensive, certain records and documents are not covered under the Act, including:

- Wills, codicils and trusts. Adoption paperwork, Divorce decrees, Court orders and notices and Notices of default, foreclosure, repossession or eviction

The SIGNificant 'Inking Pen Solution is used for this capability which is relevant when there is a need to capture and record a handwritten signature both digitally and physically

HOW THIS ELECTRONIC WORKFLOW WORKS
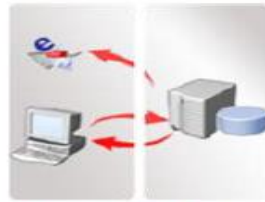

Sign — Using a Signature Pad, Tablet PC, etc.

Attach Document — Attach Scanned Passport, Drivers License or any other Document

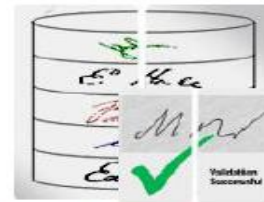**Convert & Seal** — Convert any Document to PDF and Seal it

Email & Store — Send Documents Via E-Mail, Store and Retrieve Documents

Verify — Verify Signed & Sealed Documents with a Single Click

Verify Signature — Comparing a Handwritten Signature Against a Pre-Enrolled Profile

How does it work?

E-Signing is as easy as preparing a document, sending and signing. With Silanis, you can electronically prepare and securely sign your documents over the web. It's quick and easy:

Upload your documents

Confirm who signs each document

Define where they sign by simply dragging a signature block to the correct location(s) in the document

Select the signature authentication method and send!

Want an integrated e-signature process? You can integrate electronic signatures with your core banking, loan origination and content management systems. With the click of one button, document packages can be sent out

Available as a Server or Client Based Solution

E-SIGNATURE CAPTURE DEVICES

wacom

A wide variety of e-signature capture devices is available including support for mobility

STU 300
The 4" x 1" black and white LCD screen is simple to use for capturing basic electronic signatures
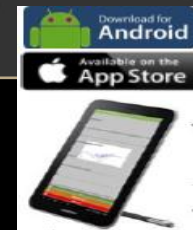
STU 500
Well suited for use in a customer facing banking and kiosk environment due to its generous comfortable screen area for capturing the longest signature as well as to display important text information and soft keys for scrolling or to advance to the next page.

STU 520
Crisp, 800 x 480 xcolour display and large signing surface

Supports pressure sensitive Active Stylus pens for Android and iPad for the most natural signing experience, palm protection and high-quality signature recording. **The SIGNificant App is available as a free download for iPAD's and Android smartphones and tablets.** The app fully supports Android-powered tablets which are equipped with an active stylus pen. (e.g. Samsung Galaxy Note, Lenovo ThinkPad Tablet, HTC Jetstream and HTC Flyer)

DTU 1031

10.1" IPS color, wide viewing angle
LCD display with 1280 x 800
resolution and LED backlight.

DTU 1631

A 16" widescreen interactive
pen display that is ideal for displaying
entire pages of electronic
documents, such as loan applications,
and the pen can be used anywhere
on the screen to fill in electronic forms
and sign the document electronically
As if it were paper.

XYZMO SIGNificant e-Signature Enterprise Platform

SIGNificant Signature Capture allows any document to be completed and signed electronically with your handwritten signature. The signature captured is forensically identifiable and can be authenticated based on the recorded parameters against a pre-enrolled signature profile. All Wacom tablets, pen displays and pen-enabled tablet PCs from FSN are supplied with integrated XYZMO software. XYZMO'S software enables capturing of handwritten signatures and comparing them against a pre-enrolled profile. When utilized, documents are only processed if their signatures have been authenticated. Other electronic files such as a scanned Driver's License can be attached and stored with the electronic signature. When it is time to capture the electronic signature, a signature box is displayed on the Wacom signature tablet or interactive pen display and the customer signs their name on the screen using Wacom's electronic pen, as if they would on paper. Using the pen to click an OK or cancel button on the screen determines the next step in the signature process. It's that simple. The electronic signature data is captured by the software including timestamp data, reason for signing, as well as all of the embedded biometric signature data including velocity, angle, change of direction and pressure sensitivity, all of which, are used to positively identify an authentic signature apart from a forgery.

XYZMO ARCHITECTURE OVERVIEW
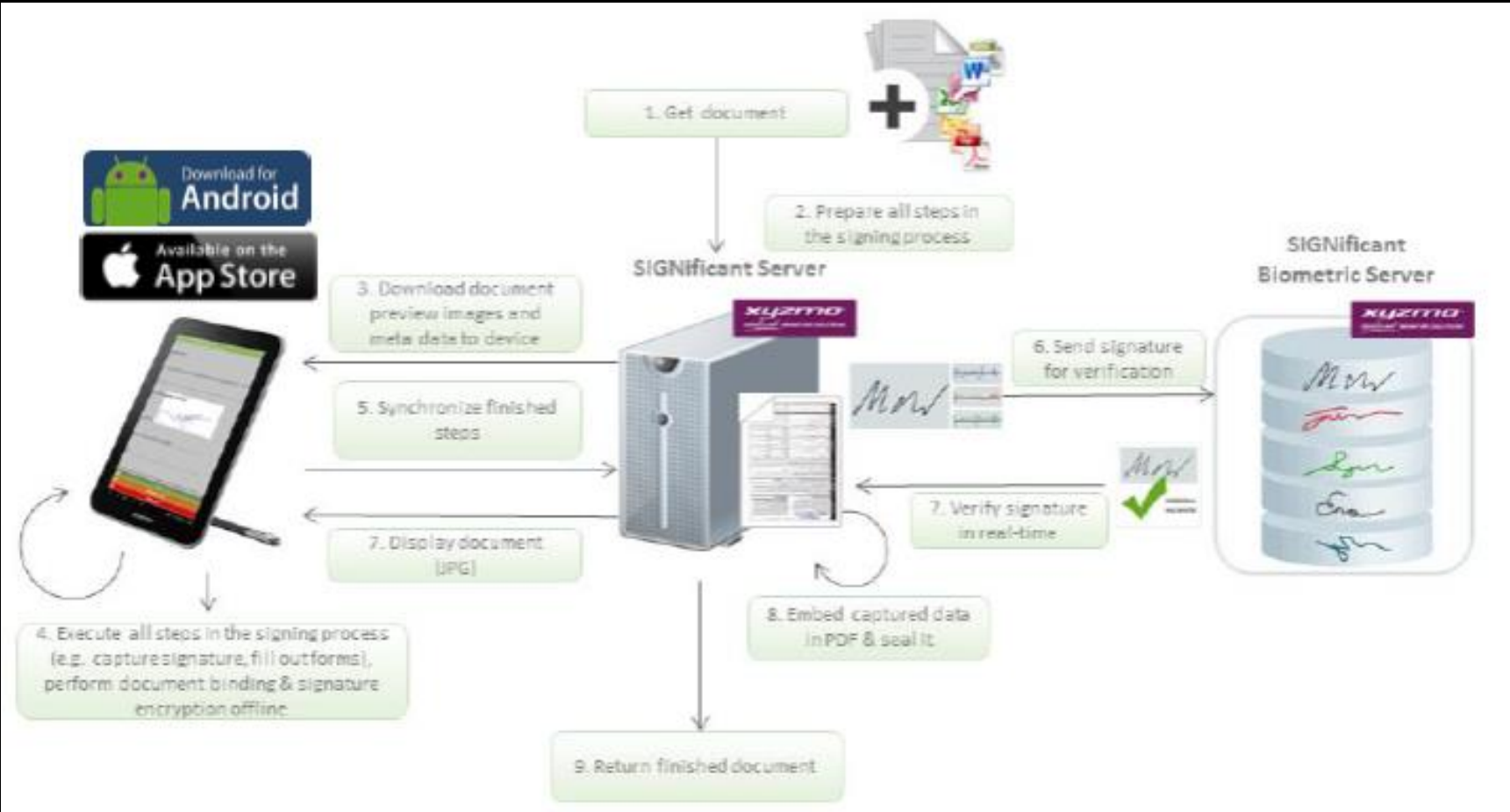
MORE THAN JUST THE IMAGE
– 5D BIOMETRICAL PARAMETERS –

A signature captured with SIGNificant is much more than just an electronic image of a digitized signature. We record – forensically identifiably – the handwritten signature of a person using all available parameters, such as acceleration, speed, and rhythm. These parameters are unique to every individual and cannot be reproduced by a forger. A pressure-sensitive "digital pen" also registers, in addition to a very high recording accuracy, the writing pressure, which allows for the best possible signature verification.

Real-time authentication for highest process security

In addition to a deep manual signature verification that a forensic expert can do anytime afterwards using the SIGNificant PenAnalyst software, xyzmo also provides a signature verification that authenticates a signature against a pre-enrolled signature profile database in real-time. As the system can use all recorded biometric data for its signature

verification, the false acceptence/rejection rates it achieves are in the low one-digit percentage range. Its self-learning algorithm enabels the system to stay up to date with changing signing habits over time. In addition, it has the advantage of lacking the invasive nature of other biometrical authentication methods such as fingerprint, face, or retina scan, all of which do not allow the simple switch to a different biometric signature in case the data is stolen.

Validation successful
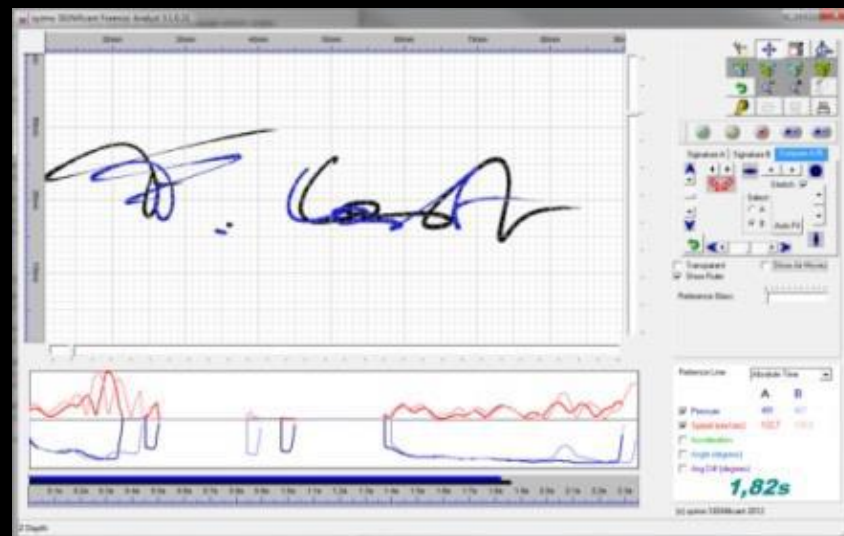
FIRST STEP – ENROLLMENT

Standard initial enrollment requires 4 to 6 signatures-can be done all at once or over a period of time

**Enroll User**　　**Create Profile**　　**Authen-ticate**

Validation Successful

THE SIGNING PROCESS IS SIMPLE AND INTUITIVE

- Working with our e-sign software is as easy for the business user as it is for the member.
- Preparing a document or form for signature is a breeze with features like drag-and-drop signature blocks and fillable text fields.
- Your members don't need an account to e-sign.
- Real–time verification of a captured signature against a signature profile stored in a database ensurse that only authorized people can actually sign a document.
- **Define all steps in the signing process** — This includes the ability to position signature fields, define the necessary attachments and group form fields into areas, which makes it easier to guide the signer through the document in the right order. The interface shows all defined worksteps as a task list and allows for easy navigation through the document.
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- **Implementing Policies for each step** —Specify if a signature field is compulsory or optional, define the order of the signature fields, enable or forbid annotations, enforce the scanning of certain atta...........................which forms have to be filled out, and much more.

✗ Please sign here

iPad SCREEN SHOT
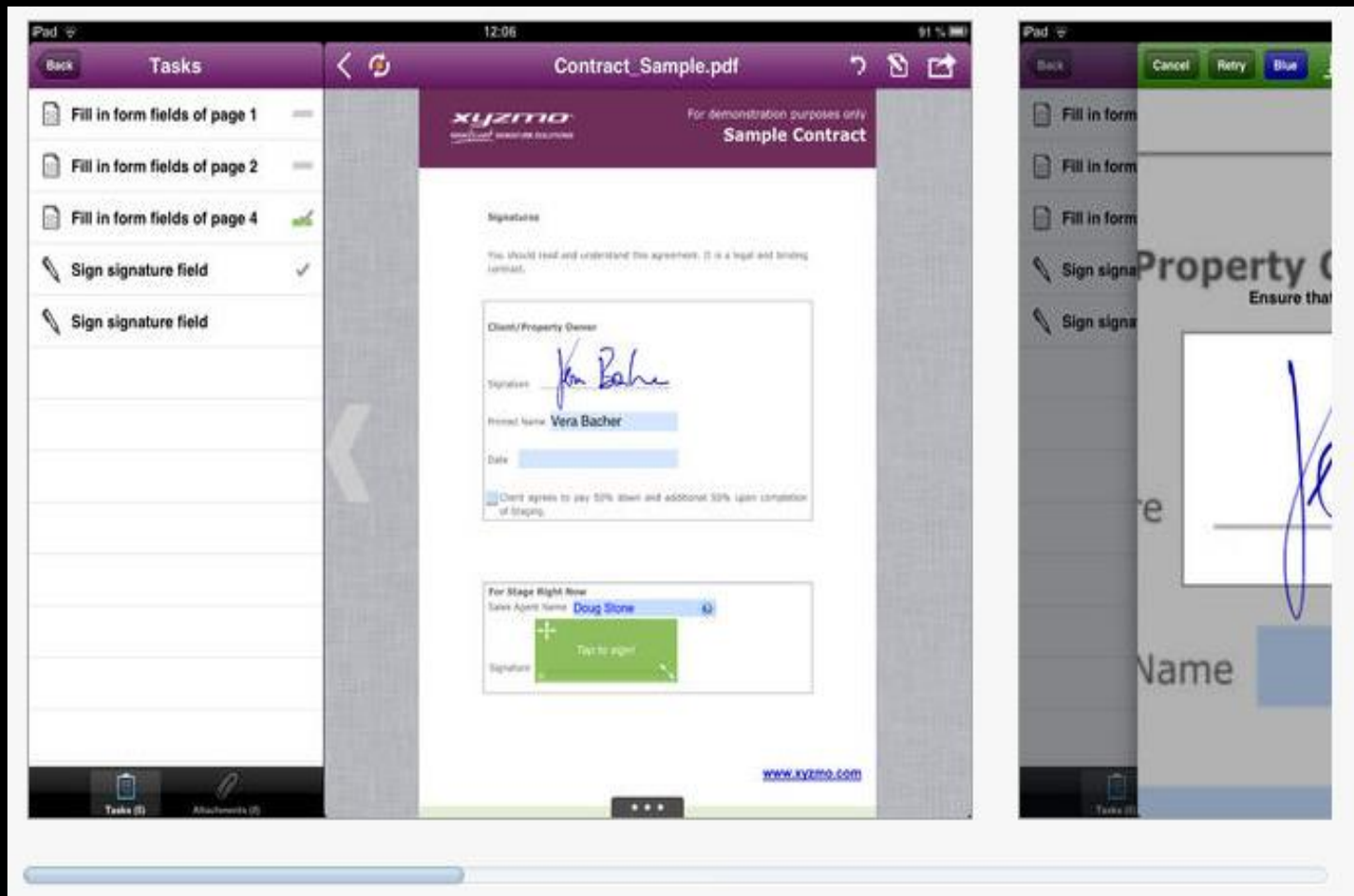
DYNAMIC REAL_TIME SIGNATURE AUTHENTICATION

Why Dynamic? Because a person's signature may vary over time. SIGNificant has learning algorithms to modify the signature profile over time. The profile is enhanced every time a signature is authenticated.

SIGNificant also has 3 verification levels; Basic, Advanced and High which involve trade-offs important to understand to design the system for your exact operational requirements. The higher the verification level, the less likelihood of a false acceptance but this increases the likelihood of clients being requested to sign more than once.

Clear, Fast Verification Results – The verification is performed in a transparent manner. The server compares the signature to the updated personal profile in the database and accepts or rejects the entry within milliseconds.

SIGNificant Biometric Server

Our captured electronic signature is much more than just an electronic image. We record the handwritten signature of a person using parameters of pressure, acceleration, speed and rhythm and compares it to a pre-enrolled profile.

Option for an Inking Pen Solution – The SIGNificant Inking Pen Solution enables the appearance of the signature on paper at the same time the signature is captured electronically. This capability is relevant when there is a need to capture and record a handwritten signature both digitally and physically, such as in countries or sectors where electronic signatures are not yet legally binding and require a physical archive of signed documents.

Using Click2Sign for Web Transactions – SIGNificant Click2Sign for web-based e-transactions offers various ways to identify a signatory over the web; from a simple —I agree‖ checkbox to a sophisticated challenge/response protocol using different channels (SMS, email etc.).

A person's signature is encrypted immediately as it is captured by the signature pad.

SECURITY

Layers of Security

Biometric Encryption

The biometric signature data is encrypted asymmetrically using a public key directly while recording. Reading the signature for verification purposes is only possible through decrypting it with the corresponding private key, which can either be stored offline, e.g. at a notary, or when required online in e.g. a High-Security Module (HSM).

Document Binding

The biometric signature is always securely bound to a unique document. Its fingerprint (hash) is encrypted together with the biometrical signature data making copy/paste attacks impossible.

Integrity Protection

Once a handwritten signature is captured, a digital signature is also applied, which turns the document into a sealed PDF, making undetectable changes of the document content impossible.

A Service Agreement becomes an electronic original when it is sealed with the Xyzmo SEAL, which is the superior sealing method of the Xyzmo digital and electronic signature solution nt.

CASE STUDY EXAMPLES

 As of September 2008 T-Mobile USA Inc. launched an ambitious program called the Five Minutes Activation (―5MA‖), ...cally reduces the new cell phone activation time in the company's more than 1,500 nationwide corporate stores from 35 minutes to only 5 minutes. Being an integral part of this program, xyzmo SIGNificant provides a unique, secure, reliable and scalable electronic signature technology fully integrated into T-Mobile USA Inc's existing activation platform that allows T-Mobile USA Inc. to process all new Service Agreements and sales receipts in all corporate stores nationwide (currently more than 10,000 point of sale stations) fully electronically.

 Teachers Credit Union
Serves employees of education and their families
15,000 members conduct business through branches, ATMs, online, and mobile banking
Management wanted to find a more efficient way to send documentation about credit, loans and transaction fees
The solution needed to: Provide members a better experience
Comply with regulations
Stand up in court if a loan went into default
Members can apply for a personal loan over the phone and e-sign their application from the convenience of their home or office.

 Israel's Largest Insurance Company, is Using SIGNificant Signature Solutions for its 600 Field Agents, 2,000 signing stations

 TATRA BANKA –the first bank in Slovenia to implement e-Signature and chose Xyzmo SIGNificant software.

 SA MULTI LOAN, a member of the Onesys Group, is a loan sourcing company with over 100 branches, 15,000 loan applications per month and a national footprint across South Africa.

Trusted by the World's Most Respected Brands

HOW TO GET STARTED

Free 30 Day Trial –You can simply download the software with a fully functional FREE evaluation key, and use the product with all features for a free trail. No Registration. No Credit Card. - Contact FSN

Service Plans-Outright Purchase or Lease, On-Premise Client Server or Hosted and Managed

Videos: http://www.youtube.com/watch?v=b8ZDjS3F2rs

http://www.youtube.com/watch?v=2PC-B8wo6s0

http://www.xyzmo.com/en/resource-center/Pages/SIGNificantClient.aspx

PenAnalyst video: http://blog.xyzmo.com/en/blog/2013/05/23/significant-penanalyst-for-signature-analysis/

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FALKEN SECURE NETWORKS INC. (FSN)

FSN along with industry-leading manufacturer partners WACOM and XYZMO are the leading electronic signature providers in the financial services and other major industry sectors such as insurance and telecom.

Specialists in RFID, Biometric and Wireless Sensor Networks for Challenging Environments

FSN is focused on real-time enterprise operational visibility and process improvement with RFID, Biometric and Sensor technologies as its "eyes".

FALKEN Secure Networks Inc.(FSN) is a leading wireless technology consulting and system integration firm that provides system design consulting, technology selection, project management, system integration , installation, training and technical support for mission critical Automatic Identification and Data Capture(AIDC) and Real-Time Data Visibility utilizing RFID, Biometric, GPS, IP Video Surveillance, Location Services, Wireless Sensor Networks , Fleet Management, Secure Enterprise Communications

FALKEN Secure Networks Inc. is an Authorized Value-Added Reseller of WACOM and XYZMO.

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