

White Paper: New Account Opening Process

An Efficient Technology Inc White Paper

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FOREWORD

This white paper discusses the software, services, methods and technologies employed by Efficient Technology Inc (“ETI”) to automate the new account opening process for financial services companies. This white paper focuses on how the Quik! Forms Enterprise Solution platform integrates seamlessly with electronic forms, back-office systems and workflow architecture, to provide an end-to-end solution throughout the entire enterprise.

INTRODUCTION

Efficient Technology Inc was the first to introduce a Software as a Service (SaaS) enterprise forms automation solution to the financial services industry. Since 2004, broker dealers with an average size of 1,000 advisors have been offering automated, prefillable and secure documents and forms via the Quik! platform. With over 10 years of experience and significant market leadership ETI has developed specific expertise in helping financial institutions lower costs and increase advisor retention through the use of enterprise forms automation.

Assumptions

The intended audience for this white paper is financial service professionals who are looking to automate their new account process. This paper touches on some of the technical aspects of enterprise forms automation, but does not assume the reader has a technical background.

OVERVIEW

The New Account Opening Process

In order for financial advisors and agents to do business with their clients, each advisor relies on the processes of their financial institutions to open and maintain accounts. The new account opening process for most advisors involves finding and completing their firm’s new account paperwork, then obtaining a client signature and sending the paperwork to the firm’s back-office processing department. The processing department then enters the data from the paperwork into a centralized database and executes a transaction. Transactions can range from validating account information, to opening a new account, to maintaining an account and a multitude of other types of transactions.

The Current Way...

The process most advisors go through today consists of completing volumes of paperwork, typically by hand, sent via regular mail to their financial institutions. In addition, the back-office processing teams also labor to read, interpret and enter the data found on the forms, often resulting in "Not In Good Order" (NIGO) errors. In some cases, the back-office may have implemented complicated imaging processes to assist in the data entry and document management, which help alleviate the labor, but does not fully enable an integrated end-to-end process.

A Better Way...

The future of forms automation is the ability for the advisor to submit transactions directly to their firm's systems with immediate feedback and notification with the status of the transaction. However, in order to accomplish this level of automation, all participants must be using a common platform in which to communicate and share information.

The "common platform" for forms automation is the Quik! Form – an Adobe PDF form enabled with interactivity, security and process integration to move data from the advisor's system to the firm's back-office and back with the click of a single button. Behind the scenes, the Quik! Forms are being transported and consumed intelligently through a workflow architecture that integrates the form data with the back-office accounting, commission and document management systems.

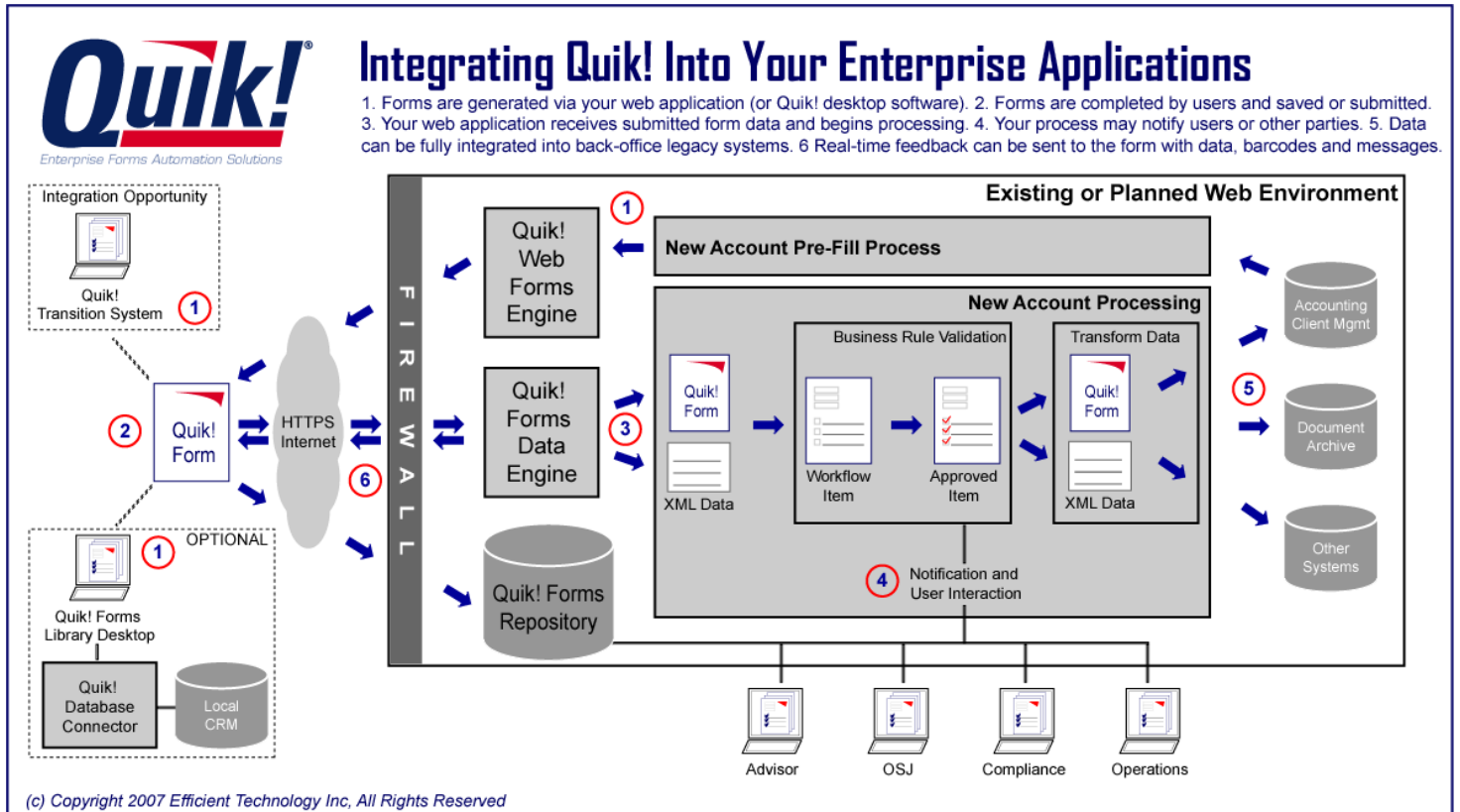
The Quik! Forms Automation Platform is a suite of solutions to provide the following features:

- Generate forms from a web-based application
- Pre-fill forms with data from a web-based, centralized and/or local desktop database
- Validate forms during and after they are completed by users
- Submit forms electronically for processing
- Save, email and share forms
- Dynamically update forms with barcodes and data
- Digitally sign and complete transactions in real-time

The New Account Opening Process flow is detailed in the graphic below showing how the new account opening process can be performed seamlessly with full integration amongst all interested parties and systems required to complete a transaction.

New Account Opening Process Solution

Quik!'s new account opening process solution is called Quik! Forms Enterprise. The solution incorporates a combination of forms automation technologies that seamlessly integrate with workflow processes, back-office processing systems, document management systems and any other systems needed to complete and manage the new account opening process.



Referring to the red-circled numbers in the graphic above, each step is discussed below:

- 1) The new account process starts with a user generating a pre-filled form. The form can be started from your company website (utilizing the Quik! Web Forms Engine), a local database (CRM) using Quik! Forms Library, the Quik! Transition System and/or a blank form that is not pre-filled. In all cases, the exact same forms are generated and pre-filled with any available data.

Typically, the forms are selected via a forms selection wizard, assisting the user in determining which forms are required and/or optional for the type of transaction that is being processed. If multiple forms are selected, they can be bundled together to create a single PDF package. In addition, forms can have field-level validation ("smart" forms) and

pre-filled fields can be set as required and/or read-only.

- 2) Once the Quik! Form is displayed, the user can complete the form and click a SUBMIT button on the form to send the form electronically to your back-office environment for processing and validation. Or, if the user is not done and needs to close out the form to work on it later, the user can click the SAVE button on the form to save their work in the Quik! Forms Repository, which resides behind your firewall.
- 3) At this stage the user can submit the document for processing and/or digital signature. When the form is submitted for processing, the form data is processed by the Quik! Forms Data Engine (residing on your web server) to deliver the exact data needed for your processing rules or legacy systems.

In addition to submitting the form for processing, the form can be saved as a live document in the Quik! Forms Repository (not shown), allowing users to manage their saved forms, email the forms with security and archive saved documents. An additional benefit of the Quik! Forms Repository is that each time a form is viewed, the latest version of that form is displayed to the user, ensuring that only the latest forms are being used.

- 4) Both the digitally signed document and the data are then routed via your process flow to various people or systems for approval (e.g. by OSJs or compliance), business rule validation (e.g. license verification, suitability checks) and data integration with back-office systems.
- 5) Once processed, the final data is supplied to your back-office systems for storage and/or system updates. When a transaction is complete, the data is transformed and delivered to back-office systems and both the data and the form's image can be delivered to document imaging for archiving purposes.

The form image is delivered to the imaging system with enough data to create a new record without requiring any user interaction or data entry.

- 6) After processing, Quik! can return a custom pop-up message to the user's form and indicate what has happened. In addition, replying to the user can display or hide fields on the form, populate fields with new values (e.g. a barcode, account number, etc) and restrict the user's actions (e.g. lock fields down, set fields to be required, etc).

Quik! supports dynamic barcode generation which allows for tight integration with imaging systems. Since the form data is submitted

prior to printing and signature, the barcode is printed on the form to give the imaging system a way to find the previously submitted form data when the form is scanned after being signed.

AN INTEGRATED ARCHITECTURE SOLUTION

When automating the New Account Opening Process as an end-to-end solution, a variety of technologies are needed in order for the process to be seamless to all users:

- a) **Client Database:** The process can start with access to a database containing client data
- b) **Forms Software:** Quik! software is used to generate pre-filled forms and the free Adobe Reader is used to view the forms
- c) **Intelligent Forms:** Intelligent Quik! Forms enable further data input, validation and signatures
- d) **Receiving Submissions:** Quik! enables websites to receive and process submitted form data
- e) **Process Management:** A system to manage the process flow, business rules and user rights
- f) **Back-Office Systems:** Quik! Form data can be submitted to a back-office processing system
- g) **Document Management:** A document management and/or imaging system archives the form image
- h) **Other Systems:** Additional systems can be integrated with the Quik! architecture to share data from the transaction

Quik! Forms Enterprise in combination with your existing enterprise workflow, back-office processing and document management systems provides for a seamless, end-to-end process for each of the components listed above.

Adoption Is The Key To Success

The implementation of any new process and/or enabling technology is only as good as the user's ability to adopt and make use of the software. End-user adoption is the highest when the technology complements the user's existing way of doing business and/or when the new process is similar, yet easier than the existing process. Quik! Forms Enterprise ensures a high level of adoption by providing software that complements and leverages the end-user's current process. Historically, Quik! enterprise-level customers achieve 67% to 100% adoption within 90 to 180 days.

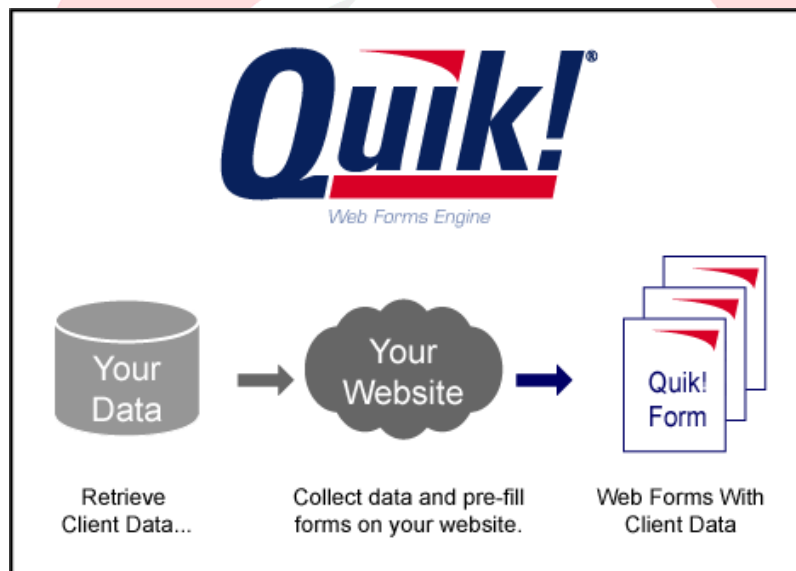
Client Database – Back-Office Database, Desktop CRMs

The first step is to allow the end user to leverage their existing client data. This can be accomplished using the broker/dealer's existing account database (if available) or allowing the advisor to continue using their local Customer Relationship Management (CRM) system, such as ACT!, Goldmine, Outlook, Advisors Assistant, BrokersAlly, dbCAMS+, EZ-Data, Junxure, ACT4Advisors, Redtail and a multitude of others.

Forms Software – Quik! Web Forms Engine, Quik! Forms Library

Quik! enables users to organize, manage, choose and pre-fill forms. The only software requirement is that the user have the free Adobe® Reader® (version 6.0 or higher). All Quik! Forms are built to the Quik! Field Definition standard which includes interactivity, 128-bit security and automation capabilities.

There are three types of software end-users can access to fill out their forms: web-based, desktop and stand-alone forms.



Web Based Software – Quik! Web Forms Engine

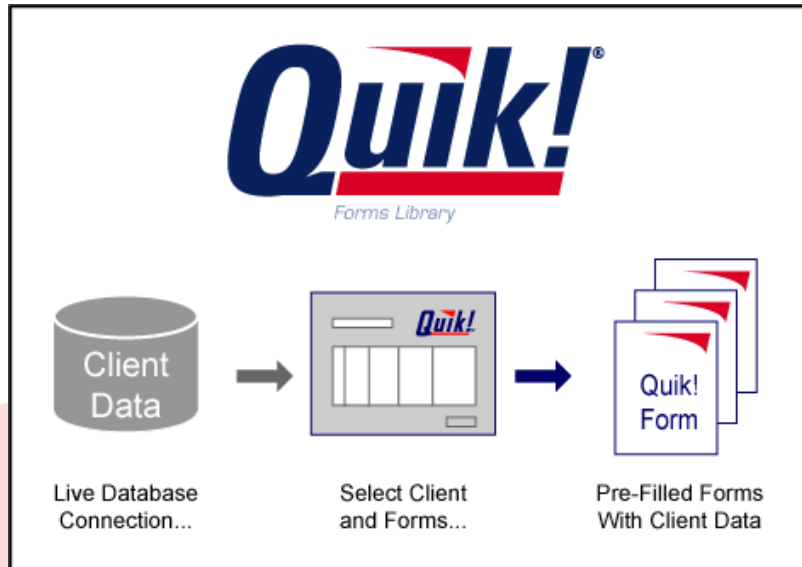
While using a website that has been enabled with the Quik! Web Forms Engine, advisors have the ability to choose any client and form(s) needed to begin a transaction. A list of forms are available directly from within the web application and forms chosen by the user

are displayed within their web browser and pre-filled with client data obtained directly from the back-office database system.

Desktop Software – Quik! Forms Library

Advisors who have invested in a CRM solution want the ability to use the data directly from their database without having to re-key information into another system such as a website. With seamless integration to over 30 different CRM packages, Quik! Forms Library offers both a desktop and web-based

solution that enables the user to leverage client data stored in their database and fill out their forms automatically. Quik! Forms Library also integrates with the web-version of Quik! allowing users to begin transactions on the web and finish filling out the forms on their desktop by pulling data from their local CRM into the forms chosen on the web.



Stand-Alone Forms – Quik! Forms

Quik! Forms can also be used as stand-alone, blank PDF forms that any user with the free Adobe Reader can open and enter data manually. With Quik!'s ability to bundle multiple forms into a single PDF data entered manually will automatically fill throughout the entire PDF further saving on data entry.

Intelligent Forms – Quik! Forms and Adobe PDF

Quik! Forms are intelligent forms because they provide a variety of ways in which to ensure transactions are in "good order". Quik! Forms can be set up with the following features to enforce business rules and automation:

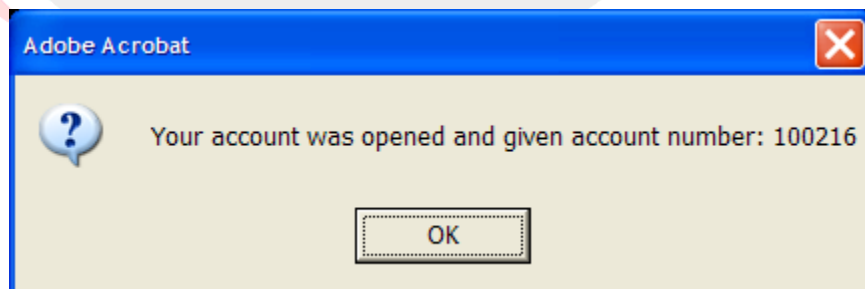
- a) **Interactivity:** Every field is setup to allow user input including text fields and check boxes.
- b) **Field-Level Validation:** Fields can be configured to enforce formatting, apply business rules, hide/unhide sections and perform calculations.
- c) **Document-Level Validation:** Forms can be checked for completeness before printing and/or submitting.
- d) **Submit Buttons:** Forms can enable users to submit their data electronically with a Submit button that sends data directly to a firm's back-office server

- e) **Security:** Each Quik! Form has 128-bit security applied to the document to ensure forms are used properly and the content is not modified by any user.
- f) **Consolidation:** Forms can also be combined together as a single Quik! Form to consolidate the pages needed for a single transaction into a single packaged delivered to the user.
- g) **Digital Signatures:** Forms requiring signatures are enabled for digital signature capture using trust authorities, a signature pad or digital pen.
- h) **Dynamic Bar Codes:** Dynamic bar codes can be used on forms to identify and capture data entered on the forms – when the bar code is scanned, all the data from the form can be matched to submitted data.
- i) **XML Form Data:** There are a variety of ways in which to convert the data entered by a user to a usable XML data file, including submit buttons, bar code scanning and document management on a server.

Receiving Submissions – Quik! Forms Data Engine

When a user submits a finished form, the form is electronically sent to your designated secure web server. The Quik! Forms Data Engine software sitting on the web server receives the submitted data and delivers a clean XML file containing the data from the form and/or the original form itself. The submission process is seamless to the user, and once the Quik! Forms Data Engine delivers data to the workflow process (explained below), additional messages and/or data can be sent back to the user's Quik! Form to update the user and the form with new information.

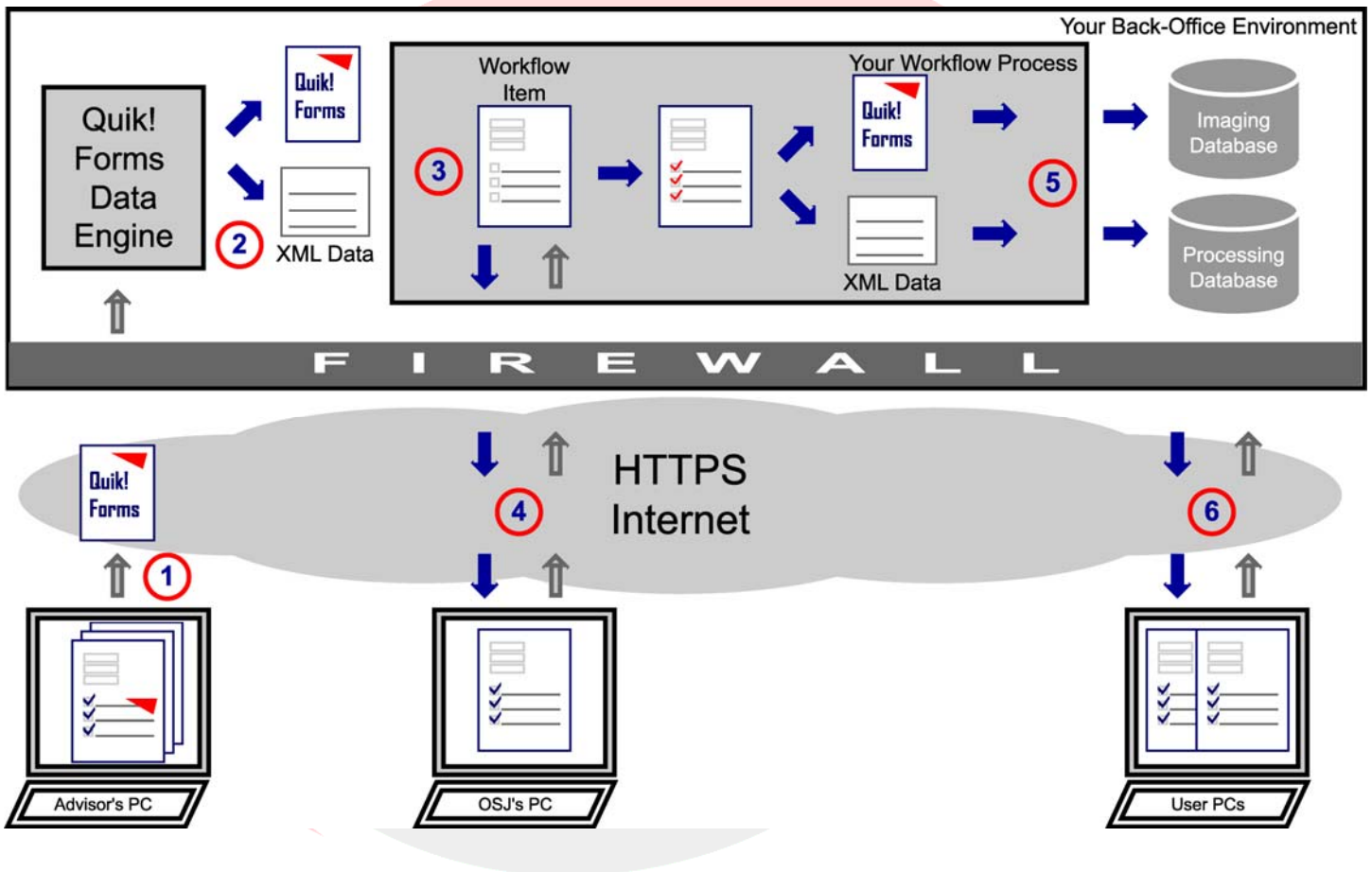
For example, if a user submits a new account form, the results of the submission can be sent back to the user as a pop-up message telling the user what action took place (see graphic below for example) and the form can also be updated with new data (e.g. entering the new account number in the proper field).



Workflow and Notification – Enterprise Workflow System

Everything up to this point in the process has been the front-end steps taken by the user to complete and submit their forms electronically. Once the data is received by the back-office, workflow is needed to route the data to appropriate parties for approval and oversight, as well as transforming and sending the data to the back-office systems for data integration.

Your existing and purchased workflow system routes the form data to any other system required to complete the process. The workflow system is responsible for integrating all of the events, information, messages and systems to manage and complete the entire process.



For example, the Quik! Form data and form itself would be contained within a workflow item that is sent immediately to the advisor's OSJ for review. The OSJ will log into the secure workflow system to review the item and take an action to approve or deny the item, and/or reply to the advisor with more information. Workflow then continues routing the item through the process to the next recipient(s) as appropriate.

Back-Office Systems

Either the Quik! form data or your workflow system can integrate seamlessly with a back-office system to provide key features to the new account process including business rule validation and data updates.

Business Rule Validation

Back-office systems often include information used to validate key business rules during the new account process. When a form is submitted a check to see if the advisor is licensed properly or if the transaction is suitable to the client can be performed directly within the back-office system. Integration with back-office systems enables the new account process to apply business rules and provide immediate feedback to both the process and ultimately the advisor.

Data Updates

Final form data is also delivered to the back-office system for account processing and record updates. This step eliminates data entry and ensures data is in good order when delivered to the back-office processing system.

Document Management

Once the final form has been approved and accepted within the workflow process, the image of the signed form and data needed by a document management system is delivered. The result is seamless integration and record updates within the document management system for document archiving and management during and after the transaction is completed.

Other Systems

At any time in the process, if data is required by third parties, such as a clearing firm, this data can be sent directly to the third party by the workflow process via the electronic process provided by the third parties. Any results sent back by the third party can then be intelligently delivered and displayed to users, and/or stored with the transaction in the back-office systems.

EXTENDING THE SOLUTION FURTHER

The New Account Opening Process Solution presented in this document resolves the major architectural challenges. This next section further extends this solution to solve the detailed needs of such a process.

Saving Forms

When users fill out forms, there may be times when the form needs to be saved (e.g. for future reference, for stopping and continuing to fill out forms

later, to send a form to a client for review, etc.). Completed Quik! Forms can be saved in a number of ways:

- a) Quik! Forms Repository – a centralized server where remote users can save their forms
- b) Desktop Software – end users who own Adobe Acrobat Standard or Professional can save forms on their desktop

Quik! Forms Repository

Quik! Forms Repository is a web-based system that enables users to save forms to a central repository for use later. Forms are saved by clicking a Save Form button (on enabled forms only) and can be recalled later when the user logs into the web-based Quik! Forms Repository. Recalled forms can be either the original form or the latest version of the same form.

Additionally, users can generate dynamic links to their saved forms and allow other users to retrieve the forms via the links without logging into the repository website. No additional desktop software is required for end-users, and because the Quik! Forms Repository is located on a centralized server it is easy to control access, compliance with NASD and SEC regulations and to ensure saved forms are properly backed up.

Desktop Software

Desktop software including the Adobe Acrobat family of products can be used by individual users to save completed forms.

Grouping and Bundling Forms

The Quik! Web Forms Engine allows forms to be bundled into groups, delivering multiple forms to a user as a single PDF document. This group can be completed online and submitted as a complete document for use within the new account process architecture just like a single form. Defining groups can be done by a system administrator, or based on form attributes including:

- Form company
- Category (e.g. retirement, college planning, administrative, RIA, etc.)
- State affiliation (e.g. annuity and life insurance forms)
- Transaction type (e.g. new account, account maintenance, etc.)
- Custom groups

A system administrator can also define a custom grouping of forms that can then be accessed by the Quik! Web Forms Engine and delivered to the user. Additionally, form groups can be required or optional for users to accept based on business rules and the web application design.

SEC and NASD Compliance

Quik! Forms are already compliant with SEC and NASD regulations. By applying 128-bit security to each form, the content on Quik! Forms cannot be altered or modified by users – the only actions a user can take are to fill in the form, print, sign and/or submit. Quik! Forms also ensure compliance by only sharing data with the user of the form and the firm that takes delivery of the document – Efficient Technology Inc never receives or takes possession of client data. Additional security and measures can be taken to comply with a firm's specific needs.

The flexible architecture of Quik! Forms Enterprise allows companies to implement Quik! in ways that meet firm-specific requirements. For example, the requirement for certain forms to be filled out, the method of transporting forms and form data, and how completed forms are stored can all be controlled by the financial services firm.

Digital Signatures and Biometrics

ETI supports all the latest methods for performing electronic or digital signatures on the forms. There are three main ways to obtain a digital signature with Quik! Forms:

Trust Authority: Signix and DocuSign

Signix and DocuSign are ETI partners who specialize in performing digital signatures as a trust authority. As a trust authority, each partner validates a person's identity via private questions and leverages their public key infrastructure to assign that person an encrypted, digital signature that is used to sign the document. Here's how it works:

1. The user is asked to log in to sign the document.
2. Before signing the user is asked questions that verify their identity
 - a. The questions are sourced from multiple databases
 - b. The user's identity is assured based on the private nature of the questions and answers
3. With the user's identity authenticated the user is prompted to sign at each place in the given document
4. The document is forwarded to the customer's processing system as a final image and PDF file.

This method of signature is ideal because it requires no software, no hardware and no training. The signature is 100% compliant and includes a full audit trail of interaction with the document.

Signature Pads: Interlink, Topaz

Signature pads are physical devices used to capture a user's signature. The users signs the device with a stylus and the signature is applied to the document and bound with the data. This solution requires the signature device hardware, signature device software and Adobe Acrobat software. Compatible devices include Interlink Electronics and Topaz Systems.

Digital Pens: Talario

A digital pen is an actual pen that writes with ink. When used in conjunction with Xpaper, which is paper designed for the pen, the pen's ink strokes are captured by the pen via an onboard camera and computer and later transferred to the user's PC to be matched to the document being signed. The pen is a little larger than a large executive pen and can sign hundreds of documents between battery charges. This solution requires the pen hardware and Xpaper software. For users who prefer ink signatures and paper this solution is ideal in bridging the gap between the physical world and the digital world.

Desktop Database Integration

Quik! seamlessly integrates with over 30 different commercial databases to provide users with instant access to their data when pre-filling forms. This ensures that the least-technical advisor who uses a desktop database program, can automate their forms without worrying about importing or exporting their data.

Our most current list of databases is available on our alliances page at <http://www.quikforms.com/Datasources.aspx>.

Open Architecture

Efficient Technology Inc's New Account Opening Process Solution is based on industry standards and an open-architecture to enable enterprises to fully integrate all of their systems to achieve a common goal – automating forms. Quik! supports the latest standards including:

- XML – eXtensible Markup Language for data transport between systems
- SOAP – Simple Object Access Protocol encapsulates XML with security and methods when transmitting data between systems
- SSL – Secure Sockets Layer for securing data transmissions with 128-bit security
- ODBC – Open DataBase Connectivity for communicating between database systems

- Java / J2EE – Java-based environments are supported
- PDF – Portable Document Format displays print-perfect forms that allow for user input

CONCLUSION

What was once considered a fixed cost has now become a variable cost. Opening new accounts via enterprise forms automation brings the new account process into the 21st century and helps customers achieve the paperless office. With a fully automated new account process customers realize tremendous cost savings, increases in productivity and capacity which results in more revenue and higher profit margins.

ABOUT EFFICIENT TECHNOLOGY INC

Efficient Technology, Inc. (ETI) provides enterprise forms-based workflow automation solutions that accommodate dynamically changing business rules, forms and workflow. ETI is the developer of Quik!, the industry-leading forms management and forms-enablement solution. By improving business processes, increasing efficiency and saving time Efficient Technology Inc delivers on the promise of workflow automation. With over 60,000 end-users ETI's customers range from Fortune 500 to small businesses. Efficient Technology Inc is proud to be a carbon-negative company saving over 1,000 trees each year. Visit www.EfficientTech.com

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Richard Walker is the CEO, CTO and co-founder of Efficient Technology Inc. Richard also spent three years as a registered securities representative with Financial Network Investment Corp. Prior to starting Efficient Technology Inc, Richard was a senior consultant with Arthur Andersen's Business Consulting unit, implementing large enterprise technology solutions for Fortune 500 companies. With over 10 years experience in financial services, Richard has worked in various capacities at: Transamerica, PaineWebber, John Hancock and Donaldson, Lufkin and Jenrette. Richard's unique combination of financial service experience, technology product development and leadership drives ETI's excellence in developing technology solutions. Richard earned his B.S. degree in Business Administration – Finance from University of Southern California. Richard has been a keynote speaker at USC, Financial Planning Association and numerous industry conferences, and is the author of the www.EfficientCEO.com blog and many articles.



Realize the Promise of Workflow Automation

White Paper: New Account Opening Process

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