# Adobe LiveCycle ES

Engaging beyond the enterprise to improve customer satisfaction and service delivery.

#### **Table of contents**

- 1 The engagement gap
- 2 Bridging the gap with customer engagement applications
- 3 The need for process automation
- 5 The next generation: Component-based architecture
- 6 LiveCycle ES technology overview
- 8 LiveCycle ES solution components
- 9 LiveCycle ES at work in vertical markets
- 10 Summary
- 11 AXA Group: Achieving higher efficiency with LiveCycle ES
- 11 Illinois Department of Human Services: Reducing administrative costs

Engagement—it's the new metric for success in today's global economy. Engagement leads to a deeper, more meaningful connection between companies, customers, and stakeholders that can result in lasting and profitable relationships.

Executives are finding that the winning differentiator is no longer the product or the price but the level of engagement—the degree to which a company succeeds in creating an intimate, long-term relationship with the customer or external stakeholder. Research shows that engaged stakeholders are valuable assets for any organization. In a recent survey, 79% of executives state that engaged customers recommend products and services to others, 64% say engaged customers are frequent purchasers, and 61% believe they provide frequent feedback on products and services. In addition, almost 55% of executives claim that engaged customers are less price sensitive.<sup>1</sup>

## The engagement gap

Engagement starts with reaching out to customers to exchange information in support of transactions, requests for services, or general communications. Traditionally, that exchange has taken place via customer visits to branch or field offices, contact with customer support reps (CSR), and the manual processing of forms and documents—in paper and electronic format. The problem with this method of engagement is that it is expensive (CSR time, paper handling, rekeying, postage), error prone, and time-consuming.

When a customer fills out a claim form or applies for a mortgage, or a citizen is investigating and enrolling for government services, data is transferred from an internal system to the end user outside the organization and back again, sometimes iteratively. The need to automate these exchanges with external stakeholders is obvious, but users often resist or refuse to use online systems, resulting in the maintenance of paper-based processes with long cycle times and high costs. They report confusion about how to provide information and concern about the security of sensitive information. Often customers feel they have specific needs that will not be sufficiently met in the online experience and become frustrated with redundant or irrelevant requests for information. Furthermore, many view the shift to online engagement as more of a benefit to the organization than to themselves. The result of this failure to engage—the "engagement gap"—is customer attrition, paper-based processing, overloaded call centers, low conversion rates, lengthy cycle times, costly errors and workarounds, and missed opportunities.

Organizations need to extend their business processes outside the enterprise for business-to-consumer, business-to-business, or government-to-citizen interactions such as new account enrollment, requests for quotations, and field service management requests. In doing so,



<sup>&</sup>lt;sup>1</sup> The Economist Intelligence Unit, March 2007.

## An example of the engagement gap

A company established internal processes for account reviews and credit checks that did not support new account openings. Customers could check their account balances online, but were asked to fill out paper forms manually and fax them. Or they could call the company, whose employees would then enter the information provided into internal systems, often initiating a separate process to open a new account. In this scenario, the account-opening process is time-consuming, resource-intensive, and largely manual for both the customer and the company employee. In addition, the need for a signature from a customer or citizen frequently means that paper—with its related postage and handling costs and error-prone manual keying of information—remains in the process.

## The engagement gap in business and government

According to a survey by The Economist Intelligence Unit, 37% of executives believe they lose between 25% and 75% of their sales every year because their customers are not sufficiently engaged.<sup>2</sup> Also, according to a survey by eGov Monitor, 55% of European citizens who have used e-government services report a positive experience. "Nevertheless, a considerable proportion (33%) of users experience at least one significant obstacle when using or trying to use online government services."3 Thus, organizations must continue to support two channels of communication with stakeholders: the lower cost online environment and the high-cost, high-touch environment for those who refuse to. or cannot successfully, use the online environment.

they can dramatically improve business performance by eliminating error-prone, manual activities such as data entry, data extraction, and routing; improving response times, transaction cycles, and data accuracy; and lowering the cost of interacting with users for transactions, provision of services, or general communications.

To effectively extend the enterprise, online applications must build a bridge between internal systems and external users that adds value to both. Creating compelling applications can increase customer loyalty; provide upsell and cross-sell opportunities; improve relationships with suppliers, partners, and customers; and speed the delivery of customer or constituent services. In addition, engagement applications can support a wide range of business processes—both inside and outside the firewall—and more securely capture and deliver information whenever and wherever it's needed, in the most convenient form.

#### Bridging the gap with customer engagement applications

Adobe LiveCycle ES (Enterprise Suite) software introduces a revolutionary new way to develop applications that can change the way organizations extend their business processes to suppliers, customers, and distributors. By blending Adobe PDF and Adobe Flash® based interfaces, LiveCycle ES enables the creation of high-value enterprise applications that connect rich Internet application (RIA) user interfaces with a broad array of LiveCycle services on the back end. With this new paradigm of interaction along with the existing LiveCycle technologies, organizations now have ultimate flexibility to design form-based processes in a way most appropriate for users.

Adobe PDF has become the de facto standard for static forms that can be printed out and filled in manually or filled in online via Adobe Reader® software and printed out for processing. And for workflows with small amounts of data captured from a limited number of users, manual and paper-based data capture may still be the appropriate method.

In 2004, the intelligent document included in the first release of LiveCycle changed the nature of the traditional form by integrating PDF and XML to provide dynamic user interactions, automated data extraction and routing (as XML data), increased security, and provided support for various client platforms. It enabled end users to complete forms online or offline that offered convenient features such as fillable fields, data prefill, business logic, spelling checker, digital signature capability, and dynamic rendering on data entered. With these enhancements, intelligent documents reduced end-user frustration and decreased abandonment, becoming the workhorses of web-based interaction.

Introduced in June 2007, LiveCycle ES provides a new method of engaging customers within a data capture experience. Called a *form guide*, it is a wizard-like approach to help users interact within a business process in a way that is appropriate for them. Form guides step users through transactions, making sure they see only the information they need at a particular step in the process. They offer guidance, graphics, animations, calculations, and database lookups, enabling form developers to reach out to their stakeholders. Form guides are exposed within a browser and can be transformed directly to a PDF file, which can be saved locally at any point in the interaction. Thus users benefit from online and offline data capture. Form guides are created with a new tool within LiveCycle ES called the *guide builder*, which is included in Adobe LiveCycle Workbench ES software.

Future generations of LiveCycle ES will result in an even more engaging interface. They will enable users to stay in the RIA or wizard environment offline without going to a PDF, paper-based format. Other features of these applications will include the use of remoting (a form of real-time screen sharing) and interactive video to provide users with real-time help from a CSR, so they can remain in an online data capture environment. This spectrum of capabilities allows developers to create customer engagement applications that alleviate customer frustration and confusion by guiding them through online processes. The result: more satisfied users and an increase in interactions that remain and are completed online (see Figure 1).

<sup>2 &</sup>quot;Beyond loyalty: Meeting the challenge of customer engagement," The Economist Intelligence Unit. March 2007.

<sup>3 &</sup>quot;Europeans want easy-to-find, useful and accessible public online services—but supply is short," *eGov Monitor*, September 25, 2006.

#### Created with a common forms and data model

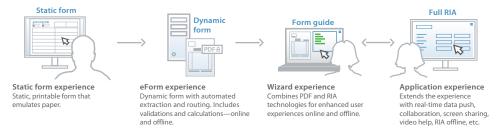


Figure 1: The forms experience

## **Engagement application example**

A customer engagement application, for example, can enable customers to view their finances via a personalized RIA dashboard on a retirement system web portal. Live data services help ensure that the information is current. While talking with an advisor on the phone, customers can click an interactive planning tool that allows them to update and refine their retirement goals. Then customers and their advisors can work collaboratively online, modeling different scenarios and simultaneously viewing dynamic charts that reflect the projected results of their choices. Once customers' goals are set, the system can automatically recommend new accounts and generate a personalized retirement guide in a PDF document that includes detailed information about each of the accounts. Rather than filling out paper forms or asking their advisors to enter the required information to open new accounts, customers experience a guided form. Also, the form guide is automatically prefilled, eliminating the need to reenter standard information.

In this scenario, effective engagement is incorporated into data capture and throughout the customer interaction. The customer is empowered to complete the transaction quickly, more securely, and accurately, supported by a live advisor, a well-designed form, and a logical process. With the right tools, enterprises can rethink the way they develop these types of customer engagement applications, transitioning from an enterprise-to-customer to a customer-to-enterprise approach.

## The need for process automation

Customer engagement applications also need to merge multiple processes into a single flow of information from invocation to execution, working toward straight-through processing (STP) in which the entire process is automated and creates the perfect mix of electronic and print communications. Many types of customer engagement applications include an "on-ramp" or process trigger that may come from a variety of users and appear in a variety of formats such as electronic forms, e-mail, and paper. They also include process management capabilities, also known as business process management (BPM), that manage the processes involved. At the end is the "off-ramp" or conclusion, which may be a notification to any number of users in many forms, including reports, documents, dashboards, e-mail, document packages, and other forms (see Figure 2).

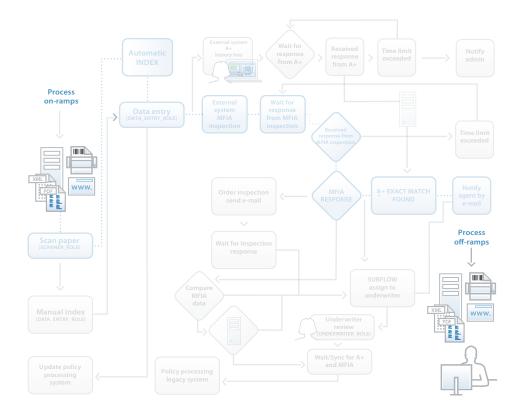


Figure 2: Process on-ramps and off-ramps

LiveCycle ES is designed to provide an integrated suite of process management services to build applications that perform all three functions. Creating these applications often involves process modeling and design, including service reuse, business rules integration, service orchestration, and web services integration; deployment of the application; and optimization via business activity monitoring after it has been placed into service. Effective process automation provides seamless and accurate exchange of information electronically and includes interactions with stakeholders within and outside the firewall.

Process automation can have a significant positive impact on enterprise goals. For example, in the insurance industry, if a company takes longer than two weeks to process a policy, they stand to lose applicants. In financial services, the move to STP delivers high levels of process automation and real benefits. For example, brokerage firms have moved to one-day trade settlement of equity transactions and have met the global demands of online trading.

## Providing information assurance within a process

Applications must protect sensitive information in a secure, confidential, and compliant manner. In fact, Adobe research with leading organizations reveals that the security of sensitive information is the primary reason they do not automate more manual processes. The risks are too great: The consequences of losing sensitive data include public disclosure of security breaches, loss of customer confidence, competitive threats due to leakage of sensitive information, and fines for noncompliance with government regulations. To fulfill security requirements, LiveCycle ES provides services within the application development environment, including rights management, document certification, and digital signatures.

These capabilities, for example, allow customers in the process of retirement planning to fill out and submit a new account application form online that needs a signature to make it legally binding. With a solution designed for end-to-end engagement, the system automatically generates all completed forms in PDF and secures them for the customers' eyes only. The signature lines are left

blank for them to sign manually, and a 2D barcode is included so that the financial institution can easily scan the paper document and associate it with their account records. In situations in which digital signatures can be used, the PDF forms would also keep the entire transaction online, avoiding the requirement for paper.

The security offerings within LiveCycle ES provide information assurance by enabling accountability for approvals and agreements, promoting full confidentiality and control of information, and increasing the reliability of information and transactions.

## **Automating the off-ramp**

The output side of a process is one that is difficult to automate. LiveCycle ES provides capabilities for content generation in both paper and electronic formats and support for high-end batch output, often used for statement and invoice printing. It provides the mechanism to assemble, create, merge, and structure content so that when a process is completed, the appropriate output can be offered to intended users in formats that are most suitable for them. When print delivery is required, costs can be reduced dramatically with postal code sorting and dynamic assembly of pre-rendered documents. Electronic archival requirements are easily met with the ability to create and convert into ISO-standard formats such as PDF/A.

For example, after customers complete the forms necessary to create an account with a digital signature and the application is approved, the system automatically generates all of their completed forms in a PDF package and sends it to their e-mail addresses with a system-generated notification. A notification may also be sent to their mobile devices. A few days later, customers receive a personalized welcome kit in the mail, complete with a cover letter and information about their new accounts, as well as flyers offering additional services that might be of interest. All of this can be done with LiveCycle ES.

## The next generation: Component-based architecture

Unlike many BPM or eForms solutions, LiveCycle ES can more effectively extend an organization's business processes to end users, closing the engagement gap, with three key components that are critical for end-to-end automation and integration:

- Ubiquitous, cross-platform runtimes—LiveCycle ES leverages Adobe Flash Player and Reader platforms, which are currently installed on over 98% of connected PCs and devices worldwide. With LiveCycle ES, enterprises can engage users in business processes even when they cannot control the client environment. LiveCycle also supports the new Adobe AIR™ product, taking RIA-based engagement to an offline world.
- Standards-based frameworks and tools—An Eclipse-based IDE allows developers, designers, and business analysts to collaborate on, develop, and deploy customer engagement applications that fit the organization's architecture and avoid costly future maintenance. Standards-based frameworks for application development within the LiveCycle ES environment include PDF, XML, JavaScript, MXML, and ActionScript. Developers can also create engaging LiveCycle front ends with Adobe Flex™ software as well as creative products including Adobe Creative Suite® and Adobe InDesign® software.
- Scalable document, data, and orchestration services—LiveCycle ES provides a set of services for developers to create their customer engagement applications. Through a component-based architecture, LiveCycle services are accessible within a design environment and can be reused across applications. The core LiveCycle offering includes the ability to orchestrate and invoke these services and to integrate with various data sources, applications, and web services to enable a broader array of application functionality.

#### Key LiveCycle ES benefits

Build applications that are more engaging

- Improved end-user interaction
- · Higher end-user satisfaction
- Enhanced outward-facing applications

Reduce development times

- · Faster cycle time
- · More productive, efficient environment
- New applications
- · Application collaboration

Protect sensitive information

- Increased end-user confidence
- · Regulatory compliance
- Rights management, digital signatures, document certification

Extend the enterprise

- Extended customer reach
- · More and larger transactions
- · Increased loyalty
- · Reduced abandonment

The advantage LiveCycle ES brings to organizations is evident in the breadth of services available in the integrated platform technology (see Figure 3). These services help ensure that organizations can build the kinds of customer engagement applications they need to successfully engage constituents and customers.

## LiveCycle ES scalable engagement services

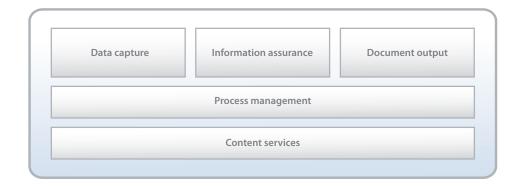


Figure 3: LiveCycle ES services

- Data capture—Designing and deploying RIA applications, interactive PDF forms, and web forms
- Information assurance—Protecting electronic documents through rights management and digital signatures
- Document output—Minimizing distribution costs through intelligent creation and assembly of personalized electronic or print documents
- Process management—Streamlining and fine-tuning human-centric business processes within and beyond the firewall
- Content services—Enabling rapid development and deployment of content-rich applications

The services included in each of these areas are offered as LiveCycle ES solution components and provide a comprehensive set of functionality for developers to build the variety of LiveCycle applications they need.

## LiveCycle ES technology overview

LiveCycle ES user interface: Leveraging standard frameworks and tools

When it comes to engagement, client experiences are what make the difference between a successful application and one that cannot keep users engaged in the process. LiveCycle ES provides the broadest set of technologies for creating interfaces to applications that keep users engaged:

- PDF and XML—LiveCycle ES combines PDF and XML standards to capture information, integrate it with data from back-end systems, and dynamically generate personalized documents. It binds XML schemas to intelligent PDF forms and documents, allowing form data to be extracted and exported as an XML file to back-end systems. These intelligent forms can also be linked to web services or directly into databases using HTTP, SOAP, or other standard protocols. The XML schemas for PDF forms can be industry-standard vertical vocabularies (such as eGov, ACORD, and HL7) or custom schemas developed internally.
- Flash and Flex—Flex is the standard platform for developing RIAs that are personalized, interactive, multimedia rich, and supported by all major browsers and operating systems. Because Flex RIAs run on Adobe Flash Player, enterprises can reach the broadest possible audience of customers, partners, and employees.

- HTML—LiveCycle ES leverages HTML at every level, including clients, programming models, server technologies, and tools. Form authors and developers can create static or dynamic forms that can be rendered using a variety of client technologies, including HTML.
- Adobe AIR—LiveCycle ES leverages Adobe AIR, a cross-operating system runtime that allows
  developers to use their existing web development skills to build and deploy RIAs to the desktop.
  Once installed on Adobe AIR, these connected desktop applications complement browser-based
  web applications by providing additional reach and capabilities.

## LiveCycle ES tools: A revolutionary IDE

The development tools available in LiveCycle ES provide everything you need to create customer engagement applications:

- Adobe LiveCycle Designer ES—Provides robust and intuitive tools for creating interactive
  forms, document fragments, or personalized document templates. Enterprises can create
  dynamic XML templates using LiveCycle Forms ES that can be rendered as HTML, PDF, or
  FLV files, and can enhance document security by adding digital signatures to XML templates.
  This tool is included in every LiveCycle ES installation and works in conjunction with LiveCycle
  Workbench ES.
- Adobe LiveCycle Workbench ES\*—Offers a single, integrated, Eclipse-based development environment for form, document, and process design that simplifies the management and creation of components, fragments, templates, and schemas. All LiveCycle Workbench ES software components are stored in the centralized repository, allowing teams—including developers and business analysts—to work collaboratively on a LiveCycle application within a staged environment. Finished applications, including forms, form guides, workflows, dashboards, other RIAs, and components, are exported as a single file to a systems administrator, who can then deploy the application on the network to end users.
- Adobe Flex Builder<sup>™</sup> Enables users to create additional components, such as animation, charts, and other graphics, which then can be used by LiveCycle Workbench ES to develop more engaging front ends to applications.

## LiveCycle ES foundation: Building interoperability into the process

The LiveCycle ES foundation is a shared set of services that supports most LiveCycle solution components and is the integrated core of the product family:

- Service container—Provides the common runtime environment to support all solution components and associated services. It provides an event framework that enables business events to be defined. Solution components can be added, upgraded, reused, or removed with minimal administration.
- Orchestration—Enables users to link multiple solution components (and their more granular services) within a process. They can extend to FTP sites or databases and integrate LDAP or file systems directly from the orchestration component.
- Foundation services—Support out-of-the-box services that integrate with common IT infrastructures. Common services include invocation of services; orchestration of services; user directory queries; SQL queries; e-mail services through standards such as SMTP, POP3, and IMAP or a JMS queue; and read/write files from a file system or with FTP.
- Administration tools—Help simplify the management and deployment of application development from beginning to end. Tools include the configuration manager and administration console, which help monitor server activity and deploy and manage solution components. Systems administrators use the administration console, a web-based portal, to manage the deployment and configuration of LiveCycle ES applications, configure users and groups and their associated permissions, and configure and fine-tune the server settings—such as port numbers and log files. The LiveCycle administration console also allows companies to manage each solution component, configure polices for LiveCycle Rights Management ES software, and reassign tasks as a part of LiveCycle Process Management ES software.

LiveCycle Foundation ES and LiveCycle Workbench ES are not included with LiveCycle Production Print ES, which runs in a standalone (non-J2EE) environment and provides its own unique development and integration tools.

Central repository—Holds all information needed to deploy an application. An enhancement
with LiveCycle ES that is integrated with LiveCycle Workbench ES, the central repository
allows developers and business analysts to work together, from a common repository, simplifying
application deployment, saving time, and leveraging the reuse of components. It includes support
for check-in, checkout, and version control to streamline the process and eliminate manual tasks.
Application development is merged as an archive file that can be exported and transferred to
other LiveCycle systems for deployment on the network.

## LiveCycle ES solution components

Adobe LiveCycle ES consists of multiple solution components that can be purchased individually or in combination with each other:

## **Data capture**

- LiveCycle Forms ES: Deploy interactive XML-based forms in Adobe Reader, Adobe Flash Player, or web browsers.
- LiveCycle Reader Extensions ES: Fill in, sign, comment on, or save Adobe PDF files using only Adobe Reader software.
- LiveCycle Barcoded Forms ES: Automate the capture of form data using dynamic 2D barcodes.
- LiveCycle Data Services ES: Integrate rich Internet applications (RIAs) with LiveCycle services, J2EE applications, and business logic.

## **Information assurance**

- LiveCycle Rights Management ES: Manage usage rights to protect sensitive documents in PDF, office, or CAD formats.
- LiveCycle Digital Signatures ES: Automate the signing, certification, and validation of digital signatures in PDF documents.

## **Document output**

- LiveCycle PDF Generator ES: Automate the creation and assembly of PDF document(s) from virtually any file format.
- LiveCycle PDF Generator 3D ES: Automate the creation and assembly of PDF documents from engineering product data.
- LiveCycle Output ES: Dynamically generate personalized documents on demand in print and electronic formats.
- LiveCycle Production Print ES: Dynamically generate personalized documents for high-volume production environments.

## **Process management**

- LiveCycle Process Management ES: Streamline human-centric business processes across your firewall.
- LiveCycle Business Activity Monitoring ES: Monitor, analyze, and tune your LiveCycle ES applications.

## **Content services**

- LiveCycle Content Services ES: Store, manage, and collaborate on the content used in your LiveCycle ES applications.
- LiveCycle ES Connectors for ECM: Extend your LiveCycle ES applications to connect with industry-leading ECM systems.

## LiveCycle ES at work in vertical markets

LiveCycle ES is uniquely suited to automate mission-critical workflows in key vertical markets and to create a new category of applications that engage end users in new ways. See LiveCycle ES in action online, with demos that illustrate real-world examples in key industries—including financial services, government, manufacturing, and life sciences—at <a href="https://www.adobe.com/products/livecycle">www.adobe.com/products/livecycle</a>.

#### **Financial services**

Financial services institutions need to find ways to differentiate themselves and increase their bottom line. LiveCycle ES solutions enable organizations to more effectively engage their customers and employees by delivering high-quality, personalized experiences across a variety of channels and devices. They also help automate processes that need to connect people and information, eliminating bottlenecks and redundant activities in a highly secure environment. As a result, they can increase efficiency, shorten customer response times, and improve profit margins.

## **Banking/capital markets**

To improve their bottom line, financial services institutions need to deliver customer profitability quickly and make it easier for customers and partners to do business with them. LiveCycle ES enables organizations to use PDF documents and RIAs to create more secure, personalized, and engaging interactions for accelerated customer onboarding, increased online usage, and improved customer retention. At the same time, LiveCycle ES enables them to accelerate their time to market and reduce maintenance costs. In addition, advanced document generation capabilities enable organizations to more quickly respond to customer needs on demand at branch facilities, over the web, and in the call center, or for high-volume record printing (such as statements).

LiveCycle ES key solution areas for banking/capital markets include:

- · Account opening
- eMortgage enablement
- Extended loan automation
- Platform productivity
- Broker/advisor productivity
- · Correspondence management

#### Insurance

Insurers need to improve profit margins by automating costly and error-prone processes that integrate people, information, and systems. LiveCycle ES provides enhanced data capture capabilities for clients and brokers, resulting in increased efficiency while maximizing agent productivity and increasing customer loyalty. The depth and breadth of its document generation capabilities provide insurance firms with a better way to communicate with their customers.

LiveCycle ES key solution areas for insurance include:

- Agent productivity
- ACORD XML forms integration
- Correspondence management

#### Government

To respond to increased pressure and constituent expectations, government agencies must transform and extend government processes to deliver information, providing a more productive and trusted experience for constituents, agency personnel, and the military. With the ubiquity of Reader and Flash Player, LiveCycle ES solutions help government agencies build engaging experiences while enabling them to comply with regulatory mandates and adhere to standards. LiveCycle ES enables increased usability, resulting in better service, greater constituent satisfaction, improved efficiency, and better utilization of agency personnel.

LiveCycle ES key solution areas for government include:

- · Social services
- Benefits enrollment
- Self-service for citizens and business
- Justice and public safety
- Certified documents
- E-disclosure and court automation
- · Tax and regulatory
- Tax filing and reporting
- Self-service for citizens and business

## Manufacturing

In manufacturing, there is a constant push for "better, faster, cheaper" with issues expected to be addressed in real time. As product lifecycles shrink, mass customization puts pressure on design. Customer satisfaction is the key to customer retention and after-market revenues. With competing standards within the industry, a wide variety of software and file formats have become prevalent. LiveCycle ES can help organizations standardize on ubiquitous PDF documents to improve supply chains through better consolidation of information and effective extension of applications. In addition, organizations can create rich, tailored collaboration packages to deploy product designs faster.

LiveCycle ES key solution areas for manufacturing include:

- · Field service delivery
- Engineering change order management
- Manufacturing work instructions
- Request for proposals (RFPs)

## Life sciences

Life sciences companies are constantly looking for ways to shorten their drug development cycles, reduce the high cost of research, and increase revenue. They must improve operational efficiencies to reduce the time for getting new products approved and on the market by accelerating the product development, data capture, and regulatory submission processes. Adobe LiveCycle ES simplifies the creation of solutions that increase process efficiencies across the life sciences product development lifecycle.

LiveCycle ES incorporates both paper and digital content, accelerating the transition to digital processes that extend to contributing organizations, partners, patients, health care providers, regulatory reviewers, legislatures, clinical investigators, and regulatory agencies.

LiveCycle ES key solution areas for life sciences include:

- SAFE
- Electronic forms for product development
- Electronic submissions

### Summary

Engaging external stakeholders is critical to future business success. With Adobe LiveCycle ES, organizations can build a bridge between internal systems and external users that improves data collection, streamlines business processes, and enhances interactions—leading to longer lasting, more profitable relationships. Now organizations can develop online applications that are compelling, efficient, and more secure and that integrate with the internal processes that are the foundation of every enterprise.

## AXA Group: Achieving higher efficiency with LiveCycle ES

Increased market penetration with a 260% ROI

AXA Group, a global insurance organization, needed to improve data capture, and eliminate costly errors in contract management. Almost 25% of all AXA contracts had problems with accuracy and needed to be returned to agents for corrections. AXA required at least two weeks to process a contract, contributing to a score of 1.4 sigma for process quality and efficiency.

Using Adobe LiveCycle ES, AXA streamlined and improved loan contract processes, facilitating better communications and reducing cycle times. Contract errors have been reduced to less than 1%, primarily due to LiveCycle ES features such as prepopulated fields and data validation. Contacts are processed the same day that they are received. Over time, AXA's sigma score has increased to 4.8 and continues to improve.

"LiveCycle has made new things possible, like eliminating contract errors and capturing quality data," states Alain Wensel, process owner at AXA.

With Adobe LiveCycle ES, AXA can support larger contract transaction volumes, helping the company to meet its goal of increased market penetration and a 10% annual growth rate. In addition, AXA can tailor offers with pricing based on different risk profiles, contributing to more profitable contracts. Overall, AXA has realized an ROI of 260% on their LiveCycle investment in five years.

## Illinois Department of Human Services: Reducing administrative costs

Streamlined operations, costs cut by \$6 million

As the state's largest government agency, the Illinois Department of Human Services (DHS) needed to engage more effectively with citizens and streamline operations to reduce administrative costs. The DHS estimated that in 2006, more than \$1.2 million was spent on copying and distributing paper-based forms to case managers and citizens. In addition, millions of dollars were spent helping caseworkers complete forms—a manual process that had become error prone and problematic.

The DHS deployed Adobe LiveCycle and Adobe Acrobat® solutions, converting more than 1,000 paper forms to interactive PDF forms, available online. With LiveCycle, PDF forms are integrated with DHS back-end systems, automating areas of forms processing. Key fields are auto-populated, including case numbers and citizen Social Security numbers. This simple step greatly reduces errors on forms and saves caseworkers as much as 1.5 hours in administrative time per service request.

"Adobe LiveCycle solutions eliminate many redundant processes and allow us to better serve citizens," states John Rigg, Forms Management Manager, Illinois DHS. "We've also seen staff productivity improve and administrative costs drop by as much as \$6 million annually."

With Adobe LiveCycle solutions, the DHS can reach its goal to implement a comprehensive electronic forms management system that is integrated with its enterprise systems statewide. This solution enables all participants—from government staff and constituents—to submit and process information consistently and easily, anytime and anyplace.

#### More information

For more details about Adobe LiveCycle ES, visit www.adobe.com/products/livecycle.



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