

# U.S. Army targets saving billions of dollars in processing costs with new forms-automation solution from IBM.

## Overview

### ■ Challenge

The paper-based forms system the U.S. Army utilized could no longer handle the speed and flexibility required in the field

### ■ Why Become an On Demand Business?

The U.S. Army needed to create an enterprisewide backbone to automate its forms-based business processes with a single, Internet-based solution

### ■ Solution

The U.S. Army chose to reengineer its processes with IBM Workplace Forms and other IBM middleware, hardware and software

### ■ Key Benefits

- Estimated total savings of US\$1.3 billion annually in administrative processing costs
- Anticipated improvements in Army field efficiency
- Projected one-third less time required to fill out forms

### » On Demand Business defined

An enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers—can respond with speed to any customer demand, market opportunity or external threat.



With a mandate to protect freedoms and to preserve the peace, effective and rapid decision-making is of paramount importance to the U.S. Army. Thousands of decisions are made daily—from supply orders to medical, logistical, transportation and personnel matters.

Those decisions can't be implemented until they are properly authorized. And for centuries, the best way to confirm that authorization was with an actual signature on a paper form.

*The new program will provide the Army with the means to “develop one single enterprise solution for automating functional business processes for the entire Army’s use.”*

—Jeanne Harman, chief of the Army Publishing Division, Alexandria, Virginia

## ***New process reduces soldiers' exposure to enemy fire in transporting forms***

### **On Demand Business Benefits**

- Anticipated total savings of US\$1.3 billion annually in administrative processing costs when the system is fully automated
- Projected improvement of Army efficiency in the field, as well as reduced exposure to enemy fire in transporting paper forms
- Users of the system are projected to save about one third of the time required to fill out forms when the system is fully automated

But that paper-based system could no longer handle the speed and flexibility that is required in the field today. Not to mention the costs and exposures of maintaining such a labor-intensive workflow.

The Army had already converted the front end of its traditional process with computer-produced dynamic documents that help soldiers locate, download, store and fill out forms. But the last step of the process was the same: the form still needed to be printed, signed and routed through the traditional approval processes. In addition, the Army was looking for a way to use its forms-based processes to create an enterprisewide backbone to automate many business processes with a single, Internet-based solution.

As a result, the Army chose to completely reengineer its forms-based business processes with an integrated forms-management solution using IBM® Workplace Forms™ software, along with middleware and hardware from IBM and additional software from IBM Business Partner Silanis Technology, Inc.

### **Using digital signature to reduce costs**

The Army has an inventory of more than 100,000 different types of forms, used by about 1.4 million Army personnel around the world. Many of the forms will be converted to an e-forms process that enables digital signatures, as well as transmission and approval of forms over the Internet.

The new forms program is expected to save US\$1.3 billion annually in administrative processing costs alone—to say nothing of making Army personnel more efficient, productive and responsive. For the first time, the Army will have a single, centralized format for electronic documents based upon open standards.

“The Forms Content Management Program will not only provide fillable forms and storage of data, and enable a form to be pushed from PC to PC using digital signatures, the program will also provide the U.S. Army the means to develop one single enterprise solution for automating functional business processes for the entire Army’s use,” says Jeanne Harman, chief of the Army Publishing Division, in Alexandria, Virginia.

**Productivity gains**

The implementation of Extensible Markup Language (XML) electronic forms with digital signatures promises to improve the efficiencies of Army personnel in the field.

As a recognized standard, XML allows for the definition, transmission, validation and interpretation of data between applications and organizations. Support for XML documents, such as IBM Workplace Forms built into the IBM On Demand Operating Environment, enables the exchange of information among applications, systems and people.

The use of electronic signatures in the e-form eliminates the need for soldiers to organize combat patrols to get documents signed. These convoys consisted of Army personnel in three to four vehicles transporting a printed form to a fort operating base for signature in combat areas, such as Iraq. Similarly, pallets of paper forms were flown by air-cargo ships, through war-torn countries, back to the United States for processing and storage.

The new process will eliminate the need for Army personnel to be exposed to enemy fire in transporting forms for signature and approval.

Previous paper-based form processes were estimated, conservatively, to take ten hours to complete. With one form being handled by about six personnel throughout the year, it is anticipated that Army personnel will save a total of 60 hours annually, per form.

The implementation of XML e-forms with electronic signature capabilities is expected to save the Army millions of person-hours across numerous departments.

The new e-forms program is also projected to yield the following benefits:

- *Reduced development and system maintenance costs*
- *Reduced system redundancies and common user errors*
- *Improved information security and provision of auditable records*
- *Interoperability with existing infrastructures and system extensibility – the ability to add new features to an existing program without disturbing existing code*
- *Regulatory compliance (Government Paperwork Elimination Act)*

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**Key Components**

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Software

- IBM DB2® Content Manager (Version 8.3)
- IBM DB2 Records Manager (Version 4.1)
- IBM DB2 Universal Database™ (Version 8.2)
- IBM WebSphere® Application Server (Version 5.1)
- IBM WebSphere Business Integration Server Foundation (Version 5.1)
- IBM WebSphere Information Integrator for Content (Version 8.3)
- IBM WebSphere MQ (Version 5.3)
- IBM WebSphere MQ Workflow (Version 3.5)
- IBM WebSphere Portal (Version 5.1)
- IBM Tivoli® Access Manager
- IBM Tivoli Identity Manager
- IBM Tivoli Storage Manager (Version 5.3)
- IBM® Workplace Forms™
- IBM Workplace Forms Designer
- IBM Workplace Forms Server
- IBM Workplace Forms Viewer
- Silanis ApproveIt Desktop
- Silanis ApproveIt XHTML Server

Hardware

- IBM @server® xSeries® and pSeries® using IBM TotalStorage® products for data storage

IBM Business Partner

- Silanis Technology, Inc.
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## **The competition was tough—but not tough enough**

Paul Chan, program director, Workplace Forms Marketing, IBM Software Group, says, "The IBM/Silanis team was in head-to-head competition with a consortium from Oracle, BEA, Adobe and BearingPoint. The real strength of our unique solution was based on the tight integration between IBM Workplace Forms and the entire IBM On Demand Operating Environment. The shared open-standards approach of the team gives the Army a scalable solution that will ensure flexibility for the future. The combination of IBM middleware with IBM Workplace Forms built on native XML documents is a powerful one with proven success in large, enterprisewide deployments."

## **How does it work?**

Users can work on e-forms online or offline. A user-friendly IBM Workplace Forms interface easily guides them through the form-completion process. Form users can now save their work, then add to it, revise it or review it later at their convenience.

IBM WebSphere® Portal software will allow Army personnel to open multiple windows or portlets. Within a portlet, they can view items, such as an in-basket, a list of commonly used forms, or forms awaiting completion. Users can access, use and share information or applications.

Using Silanis' Approvelt software, the Army can now add secure electronic signatures to forms, including a detailed approval audit trail. The signer's identity and certificate status is verified, and signatures are visibly invalidated on any document that has been modified. The new solution enables validation of a user's authorization throughout an entire enterprise workflow process.

## **IBM middleware—underneath the covers**

The new solution is based on IBM DB2® Content Manager, IBM WebSphere Application Server, IBM WebSphere Portal, IBM DB2 WebSphere Information Integrator for Content and IBM DB2 Universal Database, as well as DB2 Records Manager, IBM Tivoli® Access Storage Manager and IBM Tivoli Identity Monitoring Suite Manager.

## **For more information**

Please contact your IBM sales representative or IBM Business Partner, or visit:

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