

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

IBM Business Partner Enterprise Information Management provides program, technical analysis and develops ROI plan



Overview

The Challenge

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

The Solution

The Army chose to re-engineer its processes with IBM Workplace Forms™ and other IBM middleware, hardware and software, plus the program and technical analysis provided by [Enterprise Information Management](#)

The Benefit

- *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*

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 a signature on a paper form.

But that paper-based system can 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 already had converted the front-end of that traditional process with computer-produced dynamic documents that helped

soldiers locate, download, store and fill out forms. But the last mile in the process was the same: the form 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 enterprise-wide backbone to automate many business processes with a single, Internet-based solution.

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

“With outstanding IBM resources.... EIM can provide better quality and more responsive support to our customers and be more agile in a growing global marketplace.”

Bruce Lyman,
chief executive officer,
Enterprise Information
Management

Solution enables soldiers in field and in offices to make decisions quicker on everything from supply orders to personnel matters

Benefits

- Anticipated total savings of \$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 their time required to fill out forms when the system is fully automated

Enterprise Information Management (EIM), an IBM Business Partner, headquartered in Arlington, Virginia, helped make the solution successful by performing program and technical analysis, developing a five-year program budget and return on investment plan and assisting with hardware and software acquisition.

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 signing, as well as transmission and approval of forms over the Internet.

The new forms program is expected to save \$1.3 billion annually in administrative processing costs alone when the system is fully automated—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, 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,” said Jeanne Harman, chief of the Army Publishing Division, in Alexandria, Virginia.

Productivity gains

The implementation of XML electronic forms with digital signatures promises to improve efficiencies of Army personnel in the field. XML stands for Extensible Markup Language and is a specification designed especially for Web documents.

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 IBM’s 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 several Army personnel in a three-to-four vehicle convoy transporting a printed form to a fort operating base for signature in combat areas, such as Iraq. Similarly, palletes 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.

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Previous paper-based form processes were estimated, conservatively, to take 10 hours to complete each form. 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.

In total, 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 also is projected to yield the following benefits:

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

How does it work?

Customers can work on their e-forms online or offline. A user-friendly IBM Workplace Form interface guides them easily 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 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. They can access, use and share information or applications.

The Army now can 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.

“The selection of the IBM software suite was the best choice for the Army enterprise program,” said Bruce Lyman, chief executive officer of EIM. “The requirements were very specific on availability, technical capabilities and scalability to the size and global nature of the Army enterprise,” he said.

Key Components of the U.S. Army solution

Software

IBM Middleware Solution for Government E-Forms and Records Management

- 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)

Hardware

- The software solution runs on a variety of IBM eServer® xSeries® and pSeries® using IBM TotalStorage® products for data storage.

IBM Workplace Forms

- IBM Workplace Forms™ Designer
- IBM Workplace Forms Server
- IBM Workplace Forms Viewer Silanis
- ApprovelT Desktop
- ApprovelT XHTML Server

The solution needed to be robust and provide value. "At the end of the day, it came down to what was the best solution for the soldiers in the field, and the Army's clear choice was the integrated content management suite from IBM," Lyman said.

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Lyman said being an IBM Business Partner enhances the services his company provides. "With outstanding IBM resources available to us at the touch of a button, EIM can provide better quality and more responsive support to our customers and be more agile in a growing global marketplace."

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