IBM

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

Digital signing solution from IBM and PureEdge Solutions eliminates need to route and handle paper forms

Overview

The Challenge

Increase productivity and decrease costs for the Army's use of forms-based business processes

The Solution

Convert to a single, centralized e-forms solution that enables everyone from soldiers in the field to headquarters to use Web-based e-forms

The Benefit

- *$1.3 billion anticipated savings annually in administrative processing costs*

- *Improved efficiency in the field and reduced exposure to enemy fire*

- *One third reduction in 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.

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,
Army Publishing Division,
Alexandria, Virginia

New process eliminates exposure by soldiers to enemy fire in transporting forms

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 full automated

"The combination of IBM middleware with PureEdge e-forms built on native XML documents is a powerful one with proven success in large enterprise-wide deployments."

Paul Chan,
Vice president, marketing
PureEdge Solutions, Inc.

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

(IBM announced Aug. 5, 2005, that it had completed the acquisition of PureEdge, which had been a privately held company based in Victoria, BC, Canada. IBM is integrating newly-acquired e-forms from PureEdge into its portfolio of collaboration technology, including IBM Workplace™, WebSphere® and Lotus® offerings).

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 PureEdge e-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, palettes 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 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)

The competition was tough . . . but not tough enough

Paul Chan, vice president of marketing for PureEdge, said, "The IBM/PureEdge/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 PureEdge e-forms and the entire IBM on demand environment. The shared open standards approach of the team gives the

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Key Components of the Army e-forms solution

IBM

IBM Middleware Solution for Government E-Forms and Records Management

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

Hardware

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

PureEdge

- PureEdge XML e-forms including:
- PureEdge Designer
- PureEdge Viewer

Silanis

- ApproveIt Desktop
- ApproveIt XHTML Server

Army a scalable solution that will ensure flexibility for the future. The combination of IBM middleware with PureEdge e-forms built on native XML documents is a powerful one with proven success in large enterprise-wide deployments."

How does it work?

Customers can work on their e-forms online or offline. A user-friendly PureEdge 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.

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.

Using Silanis' ApproveIt, 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.

About PureEdge

PureEdge became an IBM Business Partner in 2002, working on the Air Force contract. It was an IBM Advanced Business Partner and participated in the IBM PartnerWorld Industry Networks, Web-based communities that integrate and organize the PartnerWorld experience for ISVs by industry. The initiative offers ISVs industry expertise, technical assistance, networking opportunities and marketing and sales support.

As an IBM Business Partner, PureEdge Solutions participated in the banking, government and insurance networks. Other industry networks are in automotive, education and learning, fabrication and assembly, financial markets, healthcare and life sciences, media and entertainment, retail, telecommunications and wholesale.

For more information

Please contact your IBM sales representative or IBM Business Partner. Visit us at:
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