## Contents

- EXECUTIVE SUMMARY ............................................................. 1
- INTRODUCTION ......................................................................... 1
- DOCUMENT DESIGN ................................................................. 2
- DOCUMENT PRODUCTION ....................................................... 2
- DOCUMENT STORAGE AND RETRIEVAL ................................. 3
- DOCUMENT CAPTURE .............................................................. 3
- DOCUMENT DELIVERY/DISTRIBUTION .................................. 4
- DOCUMENT PROCESS MANAGEMENT ................................. 4
- THE BIG IDEA: THINK SMALL .................................................. 5
- HOW ONE COMPANY DID IT .................................................... 5
- ROI VS. VOI................................................................................. 6
- CONCLUSION............................................................................. 7
- ABOUT ACOM SOLUTIONS, INC .............................................. 7
Executive Summary

Business Document Management – A Systems Approach

The back office is often the last outpost for cost savings in today’s corporation; and in the quest for economy, companies seek out automated solutions that will get their documents and payments produced more quickly and economically, others to distribute them, still others to archive them. Each time a new solution is acquired, it must be integrated with the others in the production-distribution chain. This involves time and expense and not infrequently, overcoming compatibility, performance and testing issues that delay and complicate implementation.

This paper proposes a “systems approach” in which tested components, built to work together, tackle the back office document management task from inception to completion – from the creation of document templates to their production, delivery, archiving and post-delivery access and handling. It provides a case example of how it’s done and how it works and it presents an easy means to determine not only ROI, but also VOI, or value-on-investment: those many indefinable benefits we know are there but find hard to measure.

System (from Latin systēma, in turn from Greek σύστημα systēma) is a set of entities, real or abstract, comprising a whole where each component interacts with or is related to at least one other component and they all serve a common objective. Any object which has no relation with any other element of the system is not part of that system but rather of the system environment. A subsystem then is a set of elements, which is a system itself, and a part of the whole system. - Wikipedia

Introduction

Upgrading business document management in today’s corporate environment involves a recognition and commitment to the “systems” concept: that rather than a chain of separated functions, office processes should be viewed as parts of an integrated whole.

The end product in business offices normally is documentation in the form of communications, business information, reports … even payments. So in considering upgrades, let us assume that most of the business processes that have involved the use of hard copy documentation in the past now incorporate digital processes to a greater or lesser degree. Our task is to figure out how to make them better, what to replace and how to do it. Cost is always a factor but beyond cost is efficiency, effectiveness of operations and the mission and impact of the various functions within the organization.

Certain function and volume considerations suggest that paper processes continue to make sense in particular situations. In very small companies, for example, it may still be acceptable to handwrite a purchase order, invoice or check. The same may hold in midsize and large organizations for reasons of their own. But in sustaining paper processes, companies must also realize that they are also perpetuating the pre- and follow-on expenses of business forms, document printing, manual faxing and hard-copy filing. Beyond the very small organization, what is saved in holding fast to manual processes usually is dwarfed by the cost of lost efficiency; as a result, the losses scale upward as the size of the business increases.

The first phase of any business management system upgrade thus entails a realistic analysis of the requirements and a study of the types of solutions that can satisfy them: document design, document production, document delivery and filing/storage. In the most successful digital upgrade solutions, these will be integrated seamlessly in global electronic business environment that includes centralized storage of all documents and related content, with the flexibility to distribute any document in the system electronically or to print, fax or mail it as a hard copy.
Document Design

Document design is the starting point. Business document design in the AS/400/iSeries/System universe generally is accomplished in one of two ways. The complicated way is to design the document form templates by laying out their various components manually, positioning them according to latitudinal-longitudinal (x-y) coordinates. Experienced programmers often like this method.

Non-technical users find that a better solution is to have a compatible PC-based WYSIWYG design tool. Such graphics-based design tools allow even relatively inexperienced persons to create form templates by dragging and dropping form elements about the screen until the desired result is obtained, then uploading them to the iSeries/System i production machine. These templates are infinitely reusable and if modifications and additions are necessary, such as for new branches or promotional messages, they are easily incorporated simply by downloading the template back to the design tool.

Document Production

Once the template is designed, the document production process takes the stage. Intelligent document production systems know what data is needed for a particular document. They select that data from the database and merge it with the document template to assemble and format a complete document. The finished document is output in the prescribed manner – historically, to a printer but increasingly to an electronic distribution process and/or an electronic document management system. All of this eliminates the need for paper copies either for transmission or for filing.

Internal documents such as purchase requisitions and vacation requests provide examples. Today's integrated electronic environment allows such requests to be made using interactive forms located on company intranets, circulated through the approval cycle prompted by email alerts, then upon authorization, returned to the requestor with the required permissions. If a paper copy is required, one can be printed, but that remains an option, not a requirement.

Integrated document management solutions start with the productivity systems, whether document or payment related. These solutions streamline processes, reduce personnel and distribution costs and enhance security.
Payments are also documents. Like other documents, they have specific purposes and in an integrated business environment they are designed, generated and produced like any other, but with special attention to unique requirements for distribution and security.

Ultimately, data is data. It may originate in a sales order form and culminate in a shipping notice and an invoice but its nature doesn’t change: what changes is how it is purposed throughout the business cycle.

Document Storage and Retrieval

Ideally, businesses would consolidate their corporate content, placing all documents of all types in a single repository, but until recently that ideal proved both difficult and expensive. The result was that useful information too often remained isolated in “information silos,” with valuable corporate intelligence unavailable to others.

Corporate content management systems that centralize document storage, search and retrieval have been around for more than two decades. The upside has been their potential to maximize the value of corporate information. The downside has been proprietary architecture, which has led to often prohibitive purchase and implementation costs; and complex document storage, search and retrieval processes that have engendered resistance by the very individuals they are intended to support.

More recently, solutions employing web-based technology for document storage and retrieval – corporate intranets and browser search tools – have emerged. Because of the simplicity of their architecture and the fact that document storage, search and retrieval is accomplished using technology that almost everyone is familiar with, such content management solutions often can be acquired for as little as 10 percent of the cost of proprietary predecessors. Equally important, their web-based design concept virtually eliminates resistance, since anyone able to search the web is immediately able to search the corporate content solution.

Consolidating corporate content using web-based document storage also provides an opportunity to establish intelligent document retention policies. The key is the availability of simplified storage and retrieval techniques and superior document visibility. Document retention decisions can be complex, one reason being that there are few hard-and-fast rules about what to save and for how long. Another is that different documents have different functions, with the functions often determining their retention span. For example, documents related to patents or legal discovery would be expected to be retained for indefinite periods of time -- much longer, say, than paid utility bills.

Document Capture

In the centralized document storage solution, document retrieval is simplified through use of indexing. Typically, this has involved printing a document and scanning it into the filing/archiving repository with index fields applied manually to the archived documents.

Electronic capture places documents in an organized file environment as well, but uses an interface with the document management system to apply indexing metadata automatically to each document as it is generated. No interim paper stage is required and documents can be stored in text searchable PDF format for recovery using either index fields or full text search.

Scanning continues to be the normal process for incoming documents despite the fact that it usually involves significant manual activity. But for internal documents and reports generated internally, the better solution is to employ software that seamlessly integrates the document production solution with the document management system to apply indexing automatically as documents are captured at the time of production – avoiding the paper stage altogether.
Document Delivery/Distribution

The traditional company mail system is disappearing with the burgeoning popularity of the company intranet, but document distribution to external recipients still relies heavily on postal delivery. However, communication with trading partners and other outside parties increasingly is handled by electronic document delivery and distribution methods: electronic data interchange (EDI-XML), electronic mail, authorized intranet access (portals), webforms and in the case of financial transactions, the banking industry’s Automated Clearing House (ACH) network and Financial-EDI. All of these distribution techniques can be accommodated seamlessly from within the integrated document management environment.

Document Process Management

In concept, workflow embraces many areas of corporate activity, from the assembly line to the business office: in the office, it is concerned primarily with the creation and management of business documents – most specifically document routing, document approval and document versioning. Workflow challenges have always existed, and now, integrated document management solutions can create electronic workflow environments that erase most of the complications and confusion common, to the handling and flow of documents as they are stored, retrieved, modified, re-versioned, restored and/or distributed.

In document routing applications, for example, documents can be circulated in a variety of ways:

- Ad hoc routing is based on human decisions and judgment; a linear document approval routing system moves documents along step-by-step as phases or stages are accomplished – as in the case of an invoice or purchase order approval cycle.
- Rules-based routing adds logic to the equation and circulates individual documents according to prescribed conditions.
- Parallel routing systems essentially “broadcast” the documents to all concerned – for example, a request for comments on a request for proposal.

In an integrated document management environment, most document routing, document approval and document versioning steps associated with workflow can take place untended, using general, imbedded or application/content specific rules.

Web technology has broadened the appeal of centralized documents storage by simplifying use and reducing purchase and implementation expense. Consolidated document storage solutions represent powerful controlled-access knowledge management resources for all departments and functions.
The Big Idea: Think Small

Implementing large scale document management systems can be extremely complex, very costly and of serious duration. And while the strategic justification may be demonstrable, at the tactical, application level, it may turn out to be self-defeating. Post-implementation experience has shown that in many cases, such systems have been met with serious internal resistance on the part of the people who were their intended users.

That does not mean that such solutions are not worth the time, money and energy that they take to bring greater efficiency to organizations. What it does suggest is that, at least in medium-size, less-affluent organizations, there may be a better way to arrive at a better end result. Does the word pilot ring a bell?

A pilot doesn’t necessarily require setting up a “straw” or test project. If a company decides it wishes to go forward with an integrated document management solution, it can do so quickly and relatively inexpensively – say, for under $5,000.00 – for a specific function: the accounting department can provide a case in point.

By limiting the initial implementation, the company can build a fence around the project, enabling it to more carefully define and refine its various elements: impact on the people that are involved, the documents that are involved, how the documents are produced, how they are routed, how they are approved, how they are distributed, how they are captured to archives, how they are retrieved if needed and what their retention cycle must be.

In such a manner, the value of the fully integrated system can be established, the system can be implemented incrementally and within boundaries, and its users can be trained in a controlled environment. Once confirmed in a single corporate application, others can be incorporated and the integrated document management system can grow in phases without causing corporate indigestion.

How One Company Did It

Our company develops and markets integrated document management solutions and we decided that before we went to market with the systems concept described above, we had better prove it to ourselves. We did so in the think-small mode, focusing on the accounting department and still more narrowly on the sales order and delivery process.

We put a stake in the ground -- that is, we established a date from which, going forward, all of these documents would be digitized and dealt with in pure electronic form. We decided not to digitize earlier documents retroactively, accepting that with age, the need for these documents diminishes and that our appropriate focus should be on current and future activities.

The documentation train commences with the receipt of a request for proposal. We respond with a proposal, and with the receipt of a purchase agreement, we set up a customer file that continues to build as the sales progresses: the sales order, the purchase order if one is issued, relevant documentation such as questions/ responses and so on. When the order is ready we ship it, along with the invoice, the pick ticket and any freight and/or shipping documentation that is involved. An advanced ship notice goes out, normally as a webform. Since our document production software interfaces directly to the document management repository, each document goes directly to the repository as it is produced, with indexing and metadata automatically attached. All of this information is readily available to authorized individuals through metadata or full-text search if needed for customer inquiries or any other purpose.

As this first step proved itself, we began to expand the concept into other areas, including accounts payable. Within the digitized environment we are able to input incoming data to our electronic document management system in all available ways. Where direct electronic input is not available, we scan the documents into the system. Outgoing documents, such as invoices and payments, can be transmitted instantly to their recipients (ACH...
payments are scheduled, usually on a two-day basis, with immediate notification by email or the recipient’s preferred alternative). Following are a few of the ways in which the “think small” approach has already paid dividends:

- Improved customer service: invoices are sent directly to and clearly received by the party responsible for payment. No mail service delays or poor quality faxes. Disputes, questions, errors can be more quickly resolved since collections personnel have all documents available in electronic form, right on their computers.
- Improved delivery and collection times: DSO (Days Sales Outstanding) improved by at least two days.
- Reduced audit costs. Auditors have quick and easy access to all pertinent documents relating to a sale or purchase right on their computers. No need for personnel to pull all original documents for review.
- Reassignment of staff members who would normally prepare invoices for mailing, filing, etc. to other duties, such as collections and customer service.
- Lost documents are no longer a problem; files are all on servers and not in cabinets.
- Improved security: access is granted only to those with a need to review specific types of documents, such as purchase orders and customer files.
- Just-in-time inventory: purchase orders are clearly received by vendors and processed immediately, allowing us to maintain minimum inventory levels. Purchasing agents spend less time on follow up calls/faxes/emails.

All companies are risk-averse to one degree or another and rightly so. But following a prudent course, starting small and building out, any company regardless of size can have the integrated document management solution that it needs, with almost instantaneous, recognizable improvements like those we continue to experience.

### ROI vs. VOI

Boardrooms forever have insisted on seeing numbers that show how a given investment is going to pay off over the shortest possible period of time, and for good reasons: they are the ultimate custodians of the corporate well-being.

The ROI potential of an integrated document management system is easily apparent in a single example: the cost of distributing payments electronically versus conventional checks using preprinted forms. Payments by conventional check, using preprinted check forms and IT department check printing resources, accrue to $2.00 or more. Electronic payments using the banking industry’s ACH network bring per-payment costs down to mere pennies, with savings stemming from the eliminating of printing costs, forms inventory and handling, personnel costs, post-production and mailing charges.

The model can be extended, with functional variations, with savings similarly dramatic for general/special-purpose documents. The following table provides a general idea of the difference in costs between physical and electronic document delivery and distribution.

<table>
<thead>
<tr>
<th>Distribution Method</th>
<th>Unit Cost</th>
<th>Volume</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average cost, mailed document</td>
<td>$0.80</td>
<td>10,000</td>
<td>$8,000</td>
</tr>
<tr>
<td>Average cost, manual fax</td>
<td>.60</td>
<td>10,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Total operational costs, emailed document</td>
<td>.03</td>
<td>10,000</td>
<td>300</td>
</tr>
<tr>
<td>Total operational cost, auto-fax document</td>
<td>.25</td>
<td>10,000</td>
<td>2,500</td>
</tr>
</tbody>
</table>

- Mailed document costs include paper, toner, labor, envelope, labor, and postage.
- Fax document costs include paper, toner, labor, and phone call to fax.
- Email document costs are negligible.
- Auto-fax costs consist of phone charge for cover page, average-length document.
As persuasive as the ROI argument is, another concept may be equally and possibly even more relevant: value on investment or VOI. Simply stated, VOI turns attention not just to what is saved in the operation of the business but also to what is achieved: What processes are being helped? How is this contributing to other facets of the business? What is the real, not always precisely measurable impact on the many interleaved activities that impact the bottom line?

In this context, the various receive their due consideration: improved customer services, improved workflow, conservation and redeployment of personnel, expedited processes, removal of production and process bottlenecks ... you can easily put together your own list.

**Conclusion**

Upgrading business management systems should be driven by the quest for economy, efficiency, productivity and flexibility using the methodologies that best enable them to serve customers, owners, employees, trading partners and their own corporate mission. The logical next phase of business management technology is the seamless integration of document management from the creation of electronic document templates through the execution of the document’s purpose, its placement in a conveniently accessible storage repository, its delivery as an electronic or paper document and its disposition at the end of its useful/legal life.

Systems based on industry standards, rather than proprietary technology have now brought such systems within the financial reach of mid-size companies and also departments and branches of major national and international corporations. The same technology approach allows businesses to implement by department and/or function, rather than enterprise-wide, providing a controlled environment in which to prove the system prior to incremental expansion to other areas of the company as needed.

**About ACOM Solutions, Inc.**

**ACOM Offers a Complete Solution**

With its EZeDocs and EZContentManager solutions for iSeries and Windows systems, ACOM offers a complete, modular solution that addresses the full range of document management needs. With EZeDocs, Accounting departments in midsize organizations gain the ability to easily design their own electronic forms, automatically merge data from their financial/ERP or legacy systems with these forms, and output documents via print, fax, email or PDF. EZContentManager allows Accounting departments (or any other department burdened with paper-based processes) to capture paper and electronic documents, index and store them, as well as easily search and retrieve documents. The solution also includes integrated workflow processes for document routing and approval.

Document design, distribution, capture and management solutions from ACOM offer Accounting departments in midsize organizations a complete, yet modular solution. They also support the needs of IT through ease of deployment, maintenance, and use, as well as robust security, backup and scalability. As a result, customers can better manage a blended electronic/paper environment, lower costs, reduce manual handling, improve deployment of personnel, and better control documents and document-based processes to improve regulatory compliance.

For more information contact: sales@acom.com

ACOM Solutions, Inc.
2850 East 29th Street
Long Beach, CA 90806
USA

Phone: 562.424.7899
Toll-free: 800.699-5758
www.acom.com