Distribute Capture Success

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Throughout your organization, workers are receiving incoming transactional documents at a number of locations and in a variety of formats. So, how do you manage this distributed and multi-technology flow and reliably capture key information and the base document itself? How do we guarantee that the business can apply these technologies and be successful?

Let's take a moment to appreciate all of the different patterns that distributed information capture may follow. You might assign each stage in the capture process to a different geographical or organizational unit. Or you might distribute a single stage to multiple locations or employees. Finally, you might provide multiple information capture technologies for the same transaction. No matter which pattern you choose, the management objectives remain the same: improve quality, minimize processing time and reduce cost. To meet those objectives, system performance needs to be monitored and problems quickly diagnosed and corrected.

Guiding Your Capture Solution

>> Establish standards: The first step in managing distributed capture is to establish standards that cover each combination of medium and capture process. Without establishing these performance guidelines, you fail to give guidance to those involved and, therefore, can't object to substandard results. For digitizing paper forms, standards would include scanning density, image quality and indexing accuracy. For electronic transactions, the structure must conform (typically) to the industry standard. Data entry keystroke counts and error rates allow comparative evaluation of staff.

Standards must address not only issues such as image quality but also content. Organizations need certain information to properly execute their processes, and you need to demand that it is supplied. Finally, your standards should apply to outsiders, not just internal staff. No matter how much one hates to offend business associates and customers, you need to be specific about what you will and will not accept and how things should be delivered to your organization.

Let me illustrate how this works for a health insurer's claims process. The insurer publishes rules for how claims should be prepared and publishes them in a number of ways to providers. Medical claims are required to arrive on the federally mandated forms or in the industry-agreed X12 transaction. Certain values must be supplied and discretionary values coded according to the manual. Claims missing crucial information are denied out of hand. The paper capture system also has rules: only accepts red forms and they get digitized at a specific density that permits quality OCR. Facsimile transmissions must be sent with specific options to an electronic fax system that won't allow different settings. And the web interface does not permit a claim to be completed without the required information as well.

>> Design systems to avoid problems, and reward good behavior: Within the framework of defined processes and standards, there can be other ways that capture is distributed. In today's decentralized and geographically

spread world, a specific capture process may be distributed across the state, the nation or the world. The middlemen are being eliminated and services moved to the lowest cost/best quality location. The goal is always to cut transaction times and costs, permitting the organization to remain competitive in the global economy. The result: staff or clients that don't report to you but on whom you depend to make your systems succeed. There is a loss of control, often as a trade-off for other business benefits. You may find this stressful, but the business forces of today are pushing enterprises toward instant response and high touch experiences. So, it is important to engineer internal processes so that problems don't occur.

For example, a national manufacturer uses franchisees to sell and deliver its products. In the past, customers would order through their local representative who would then send in the order to headquarters, where it would be keyed into the ERP. When ready, the order would be shipped to the franchise, which would deliver supplies and install any equipment. When the order was accepted, the franchise would notify headquarters, which would then send out an invoice to the customer.

When payment was received, the franchise's account would be credited and the balance (profit) issued as a check to the agent. The process was slow, prone to errors and created a disconnect between ordering, invoicing and service delivery that often resulted in apologies and corrected orders and invoices.

Today, that's not how business is done in the Internet age, so they re-engineered the process. Orders are now entered by customers or agents into a website, which enforces business rules, feeds the ERP and gives an instant copy. The ERP responds to the representative with an order confirmation that has price, taxes and estimated shipping costs, as well as an estimated ship date. Orders can be tracked online by both the franchise and customer; when it ships, an email is sent to the agent so that he or she can schedule staff and arrange delivery with the client. The agent prints the work order locally and gets signature approval on it when all tasks are completed. Daily, a stack of completed work orders are scanned as a single file and downloaded to headquarters. The work orders are processed within minutes; the bar-coded invoice number at the top permits the file to be split into individual invoices and indexed without human intervention. Their arrival initiates the invoicing process.

>> Unify alternative information sources: Often, you must support alternative input schemes. If each of your capture solutions is implemented as an independent solution, it is necessary to make sure that the rules are identical. Any process change requires modifications to all of the solutions. Thus, the trick must be to minimize the unique components and unify the process.

For example, a university accepts admissions over the counter, by post, by fax and using the web interface. Initially, each media was handled using its own process. However, they redesigned their solutions so that the postal and counter submissions are scanned on receipt and faxes are fed electronically into the same scanning system. A single OCR application reads the data from the images and goes through the same indexing process. The same rules engine reviews the resulting captured data that checks web input as it is entered. The subsequent application data, which is delivery-source independent, is imported into the Higher Education MIS, which initiates follow-on activities, such as transcript requests and acceptance letters. The impact of admission policy changes is minimized; changes need only to be implemented once and are more easily validated.

>> Desktops are bad: All IT operations staffs know how difficult it is to maintain desktop PCs. Life becomes a continuous process of evaluating application conflicts and distributing upgrades and new packages. Any way you can move functionality to servers and away from individual stations makes it easier to ensure that everyone is using the latest version. Similarly, the more you can design your capture system to use web-based services or remote

terminal access, the easier it will be to maintain. It can also lower system costs and enable productivity increases.

To illustrate this point, a state government agency was convinced by a management consulting report to pursue a "virtual office" strategy. To achieve this, they needed to eliminate paper handling and provide secure information access for workers who might be located anywhere in the state. Incoming mail requests are scanned at headquarters and stored in a document management system based upon the document type. Remote workers are equipped with terminal appliances ($100 each) that connect to headquarters via secure VPN. The appliances have no local disk drive, printer or removable media, preserving information security. They use terminal services to review documents, add index information and access proprietary systems. The performance improvement for each staffer has been 20%, plus they have additional gains from eliminating office and file storage space. Management can monitor individual activity through communication system activity logs as well as documents accessed and transactions performed.

>> Distribute functions where they are best performed: Distributed capture systems give you the flexibility to change from one capture model to another easily. Digitizing, indexing and verification can be done in different or multiple locations, while presenting management with a unified view of the entire process. Components can also be changed without requiring a complete redesign.

Case-in-point: an insurer's broker community was initially set up to use an 800 number to fax in applications, which were received into an OCR application. This approach was chosen because it did not require brokers to buy new equipment and reduced communication costs. Over time though, it became clear that image quality was unacceptable and prevented OCR from being very productive. As an experiment, select brokers were equipped with scan stations, which would periodically connect to the headquarters' OCR system and download its images. This, in fact, improved the image quality so much that scanners were ordered for all brokers. The insurer's staff still had the unattractive task of OCR correction, however. Experiments with broker staff attempting correction were unsuccessful - the interface proved confusing and difficult to train. Thus, this task was outsourced to an offshore organization. Throughout all of these transformations, management was able to track performance using the identical interface and reports and could compare performance between alternatives.

>> You must have the data necessary to manage your capture "factory": When we combine all these principles into a distributed capture solution, the management challenge is clear. You are juggling independent entities that must coordinate and keep pace with one another, and you need to be able to catch problems quickly so that they can be addressed. What data should you have to manage this circus? Organizations need to be able to track every document and every page through the system. How else can you answer questions about "lost" documents? Each image and each document should be assigned a unique identifier at the moment of capture so they can be traced. The counts going into each stage need to balance those leaving, at least over some time period, or else you are building a backlog. For staff measurement, you need to collect keystroke and quality measures as well.