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Executive Summary

Organizations are attempting to implement a customer-centric communication pattern while continuing to struggle with growing volumes of content and documents and are drowning in systems to manage and deliver that content. Analysts estimate that large document-intensive organizations have between five and eight document automation solutions, sometimes running multiple systems within each business unit that drive different application types (claims, batch core system generated documents, correspondence or contracts) and separate mobile delivery and social media systems with duplicate content. This decentralized and sometimes ad hoc approach presents organizations with some very challenging document automation and content management predicaments:

» How to deliver personalized, mobile-aware content to customers and prospects, partners, and regulators where and when they want it?
» How to optimize content reuse and ensure the consistency and accuracy of core content delivered regardless of channel, while still balancing the need for personalization?
» How to efficiently manage, from an enterprise level, the creation and distribution of this content?
» How to manage change and maintenance across many disparate composition engines tightly coupled to a variety of core administration systems, back office and front office systems?

To address these questions, organizations must look at creating a cohesive, enterprise-wide strategy toward managing customer-centric and omni-channel communications. This strategy should be built upon an adaptive document automation and content management platform to support execution today and as requirements expand and change in the future. This brief will discuss some of the steps to achieving such a strategy, including the importance of systems integration and consolidation onto a single, agile communications platform.

The Business Challenge

We are in the midst of a new publishing revolution. The number of publishing methods has exploded along with the channels through which we can deliver documents and other communications. Today, we have publishing methods and channels such as cloud, blogs, tweets, social media, and instant messages delivered to a variety of traditional and mobile devices. Organizations struggle with the freedom and velocity of these new methods of communication in a highly regulated environment particularly in the insurance, financial services, and healthcare markets.

Businesses have traditionally delivered complex documents to their customers using print delivery or electronic versions of that same printed output. Consumers are in more control now than ever before and have high expectations around how they want to communicate throughout the customer lifecycle. Customers demand a rich interactive experience — regardless of device — that is consistent and relevant across all communication touch points. Customers want documents that are searchable, easy to navigate, and responsive to their reading device including smaller mobile devices such as phones and tablets. Businesses face the challenge of leveraging the existing investment in paper-styled content that is incompatible with a more responsive, context-aware mobile requirement.
To remain in step with this rapidly changing world of constant, real-time communication, many organizations have acquired a multitude of systems and technologies. This strategy has fueled the explosion of unstructured, often duplicated, content within the enterprise. The acquisition of multiple systems means that communication costs continue to rise.

To address these challenges, organizations must embrace consistent customer communication and document automation as a strategic business priority, and begin the work of developing a cohesive strategy that lets them manage all content, documents, alternative communications, and channels from a single, strategic platform.

Steps to an Enterprise Document Automation Strategy

So how can an organization build such a strategy? One approach is to begin by breaking the process into four tangible steps:

Step 1: Create a communication type/channel matrix to provide a visual representation of all communication types within the enterprise and how they map to channels utilized.

Each customer has his or her own preferences on how to receive communications. In the example in Table 1, Bill Smith wants to receive printed copies of his policy, bills by email, newsletters via the Web self-service portal, notifications of important events, and have access to instant messaging and chat sessions in case he has questions about his explanation of benefits.

<table>
<thead>
<tr>
<th>COMMUNICATION TYPE</th>
<th>Policy</th>
<th>Billing</th>
<th>Notifications</th>
<th>Offers</th>
<th>Newsletters</th>
<th>Disclosures</th>
<th>Promotions</th>
<th>Partner Offerings</th>
<th>Welcome Letter</th>
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</table>

Table 1: An example of how a particular customer wishes to receive communications

This may seem like a daunting task when you have several hundred thousand customers, but companies can leverage customer relationship management (CRM) and customer data integration (CDI) systems to easily store this information. One of the key questions, then, to ask when choosing an enterprise document automation system is, “How well does it integrate with and share customer information with my CRM and CDI systems?” Seamless integration with CRM and CDI lets existing content be repurposed and delivered via the correct channel for each customer.

Putting a complete customer communication management strategy in place that embraces multiple technologies is where “agile systems” become an important piece of the puzzle. Simply put, an agile system is one that is flexible enough to let organizations quickly change their business processes as needed, without an extensive IT engagement. With a suite of adaptive systems including document automation, CDI and CRM driven by core
systems such as billing and campaign management, organizations can quickly and easily implement end-to-end processes that automate much of the organization’s communications strategy across the enterprise.

Step 2: Look at the major categories of document automation and map them to the formats that your enterprise requires. This may include not only existing formats, but also anticipated future formats, outputs that are device aware.

<table>
<thead>
<tr>
<th>Structured Output Formats</th>
<th>On-Demand Output Formats</th>
<th>Interactive Output Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xerox Metadcode</td>
<td>PCL</td>
<td>HTML</td>
</tr>
<tr>
<td>IBM AFP</td>
<td>PostScript</td>
<td>XML</td>
</tr>
<tr>
<td>PCL</td>
<td>PDF</td>
<td>PDF</td>
</tr>
<tr>
<td>PostScript</td>
<td>TIFF</td>
<td>TIFF</td>
</tr>
<tr>
<td>VPP</td>
<td>Fax/GDI</td>
<td>Email</td>
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<td>Email</td>
<td>Email</td>
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<td>SMS</td>
<td>Fax</td>
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<td>Email</td>
<td>PDF/A-1</td>
<td>HTML S</td>
</tr>
<tr>
<td></td>
<td>PDF/A-2</td>
<td></td>
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</tbody>
</table>

Figure 1: A sample of existing and future formats

Communication formats might include:

- Structured output formats typically used for high-speed printing of content, such as bills, statements, at-issue policies, routine correspondence
- On-demand output formats that are used for local printing or direct access by a customer, such as quotes, confirmations, account notices via web portal request
- Interactive output formats required when the end user, agent, partner, or other party must edit or modify the content before it can be published, such as welcome kits and booklets, identification cards, business, claims correspondence or complex contracts
- Responsive formats that allow a logical view of content regardless of the viewing device and provide accessible communications for the mobile generation
- WebRTC integration for interactive chat, video chat or VOIP
- Co-browsing sessions for improved realtime customer support

This exercise will help an organization determine which capabilities to look for in an enterprise-wide document automation solution. It may also highlight capability gaps or overlap that could lead to sun-setting one or more existing systems or repurposing content for alternate delivery.

Step 3: Map out a framework each division can use to develop detailed communication plans to suit its particular product/channel/customer needs, leveraging enterprise standards and compliance requirements.

For example, here are some typical touch points for a managed financial account on an annual basis:

**Sample Communications for Managed Financial Subscriber**

| Documents sent within 30 days of inception | Portfolio Summary & Analysis |
| Documents sent in the 1st quarter | Thank-you card |
| Documents sent in the 2nd quarter | Marketing postcard (e.g. for premium services) |
Documents sent quarterly | Account statement that may include transpromotional offers or transeducational information
Documents sent in the 3rd quarter | Education Funding News
Documents sent in the 4th quarter | Annual Account Review
Documents sent in the 3rd quarter | Tax Reduction Tips
Documents sent in the 4th quarter | Seasonal greetings card
Other Documents sent during the year | Birthday card to account owner

Table 2: An example of typical communications touch points with an account holder

Each department or line of business can use this framework to map out the needs of partners, agents, regulators, and other stakeholders. Doing so ensures that communication is sent via the proper channel at the proper time, building the relationship and improving cross-selling opportunities. Once identified, this information can be stored in CRM, CDI, and an integrated document automation system. This exercise will help an organization determine ways to support customer centricity, retention, satisfaction, cross-selling, and service.

Step 4: Look at the entire set of drivers that determine an enterprise document automation strategy.

This will help an organization arrive at a clear strategic direction and identify the differentiated value that the company offers to ensure customer loyalty, now and in the future. Examples of strategic business drivers would include considerations such as:

- Product lines
- Market requirements
- Regulation and compliance
- Channels
- Collaboration strategy
- Future vision

IT considerations play an equally important role in driving a document automation strategy. IT is responsible for the integration and functionality necessary to meet the business requirements across the enterprise. IT is responsible for validating functional requirements and making sure that the vendor solutions are capable of driving the desired business requirements and operational requirements necessary to enable both business agility as well as operational agility. Some of the considerations are:

- **Data Management**: Most organizations have many disparate sources of data in many different data formats. Organizations must consider how they will manage various data formats and multiple simultaneous formats that need to be concatenated into a single optimized request for a batch run of thousands of customer records or a request for a single personalized piece of customer communications.

- **Data Enrichment**: Business intelligence, analytics and comprehensive campaign management capabilities are critical to maximizing the effectiveness of any communications strategy. The ability to segment and target messages based on hundreds of different data attributes, track the online behaviors of customers and prospects and measure the effectiveness with confidence. Campaigns can be traditional marketing messages based on account balances to specific wellness campaigns targeted to at risk members within a healthcare organization.

- **SOA Based Integration**: To maximize operational agility organizations must consider their communications strategy as a communications service that is loosely coupled from all front office, back office and portal applications. Requests can be made from any system that return a result that can be a batch job, a single on demand document or an interactive document that is routed into a business process. Core system changes and transformations can now be made exclusive of the communications service with only some re-mapping of data necessary.
» **ECM/BPM Integration:** A communications strategy must acknowledge the convergence of CCM, ECM and BPM and the importance of the interoperability within a communications strategy. The solution should be bi-directional in function to allow run time history references within an ECM repository that has the ability to return a completed document to the repository or fetch a document, or information from the repository to include or enrich the final output. The solution should also have the ability to call a business process based on an exception or be called from a business process as a part of that business process.

» **Scale:** The solution needs to be able to run on a fully clustered environment with high availability for fail over capabilities to ensure critical processes are ready and available. Large organizations need to be able to scale to high volumes of batch generated requests or concurrent users.

» **Visibility:** Most large organizations have many complex operations, processes, jobs and users processing thousands or requests per day. This makes it very important to have a unified layer of abstraction in the form of a dashboard to monitor, schedule, report, alert and drill down into any process with a high degree of granularity.

» **Distribution:** The solution also must be omni-channel capable with the ability to meet today’s required distribution channels for customer-centric communication across Web, SMS, Fax, multiple recipients and Tablet/Mobile. The solution must also be able to handle all of the fundamental complexities around print which in itself has hundreds of different device dependant attributes and hundreds of different fulfillment and finishing requirements.

How Do We Get There?

The goal of these exercises is to achieve an agile, enterprise-wide document automation strategy, which includes the following best practices:

1. Deploy a Customer Hub data mastering layer that stores customer profiles, customer preferences and transaction history that may span across multiple core administration systems, call center transactions and CRM systems. The Customer Hub is the single source of truth in enabling a complete customer lifecycle and enriches each customer interaction with relevant historical information that will drive coordinated meaningful communications.

2. Deploy a single, enterprise document automation system that can leverage a single set of business rules and content to create all output formats and support delivery of those formats to all required channels and devices.

3. Select an adaptive system based on a service-oriented architecture that facilitates integration with other adaptive systems—such as core front office and back office administration systems, claims, billing, CRM, CDI, and archiving—letting organizations easily configure and automate their business processes across the enterprise. This system should include proven tools and processes to maintain the integrity and intelligence of data during migrations.

4. Select a solution that supports personalization with the aid of CRM and CDI, to deliver the relevant content in the right format that today’s consumers demand.

5. Seek powerful library and archive management to ensure efficient use of content and keep a record of changes for auditing purposes.

6. Seek a system that lets business users access content and customize it quickly and easily in a controlled manner using familiar software such as Microsoft Word.

7. Have a powerful rules engine in place to let business users create, manage and change business rules in a controlled manner as needs dictate. For example, business users can create rules and pre-approved selective paragraphs that enable straight through processing. This will make the decision-making process a thoroughly tested, rules-driven decision and not a human decision, while making human decisions that are pre-approved content inclusions.
Conclusion

Organizations are continuing to experience paradigm shifts in the field of document automation, from a paper-based world to a mobile digital world. This requires extensible, adaptive systems that can easily repurpose existing content to provide responsive communication to a mobile customer base and business partner network. Given the influx of government, social, technical, and communication fluctuation and advances, systems must also have the ability to adapt to changes, revisions, and even massive dynamic shifts with minimal effort and in near-real time. To enable enterprise-wide productivity and heightened customer centricity, the environment must also facilitate content reuse and empower business users to do what they need when they need it, without reliance on IT intervention.

The communication revolution sweeping our world requires support of more personalized, efficient, device- and context-aware communication, as well as streamline compliance and boost overall productivity across the enterprise. Building out and executing an agile communications platform enables organizations to respond to new market opportunities faster, meet the ever changing regulatory challenges on time and communicate with customers across any preferred existing or future channel while reducing the cost of the fundamentals of traditional document production and leveraging existing collateral.