CHOOSING AN INTELLIGENT CASE MANAGEMENT SOLUTION

Seven things to know before you make your decision

INTRODUCTION

In today’s world, most business processes have evolved into a highly complex combination of human and systems interactions. These interactions start with basic content (such as an image, an email message, an application, or an e-form) and evolve into unique, ever-changing cases involving human judgment, with processes and decisions flowing to meet specific case requirements. If you are investigating new applications or platforms to help you manage your information and business processes, this guide can help. It provides an overview of the types of technologies and functionalities that should be included, with an easy-to-use checklist to help you make comparisons among different products. Consumers are increasingly using their mobile phones to shop, to find coupons and discounts, to compare prices, to check the balances on their Starbucks Cards, and to purchase ring tones and music. Consumers are also using their phones to access their bank or PayPal accounts, to make account balance inquiries, and to make transfers between accounts. Everything consumers can do with leather wallets will soon be available via mobile phones.
WHICH SOLUTION IS RIGHT FOR YOU?
What if you had a 360-degree, holistic view of everything connected to the work you were doing? It would probably accelerate your productivity and let you get more done during the day. Plus, you’d probably feel less stressed, because the information you need to get your job done would be at your fingertips.

Take a mortgage loan processor in a mid-size bank—Marty, for example. Anyone who has ever applied for a mortgage loan knows about the amount of paper involved—and that’s just from the consumer side. From Marty’s perspective, managing that loan application with all the required documents and information (a case) can be overwhelming at times. Documents are coming from everywhere, in all shapes, sizes, and formats. If he could better manage each loan case, he could increase efficiency and lower costs to save time and make more money per transaction. This increased efficiency would make Marty even more responsive to the needs of his customers and would result in higher customer satisfaction.

Marty has heard about intelligent case management but never tried it. Now, he’s about to embark on a journey to find out how it might help him.

WHAT IS CASE MANAGEMENT?
Case management is a pattern of work that integrates people, processes, and information, requiring that people systematically process and collaborate on a case—a virtual folder of related content. Traditionally used in social services, healthcare, banking, insurance, and legal environments, case management is rapidly expanding into many other industries as organizations recognize its ability to make case information easily accessible, up to date, quickly tracked, and more manageable in the context of business processes. Case management involves far more than just content management. It may include document capture, process automation, collaboration, analytics, and more.

IT’S ALL ABOUT THE CASE
A case could be almost anything requiring evaluation or investigation. Management of that case involves a pattern of work that ideally improves how an organization uses information to make decisions and run its business.

Every case is unique and can be initiated by something as simple as a loan application. Every submitted application instantly becomes a new case that resides in a case folder—a central point of control that contains all the documents, data, collaboration artifacts, policies, rules, analytics, and other information needed to process and manage the case. Every task, milestone, discussion, event—everything—is kept inside the case folder. Other examples of a case include a patient record, a lawsuit, an insurance claim, a human resources employee file, or a contract.

WHAT IS INTELLIGENT CASE MANAGEMENT?
At its core, intelligent case management streamlines, automates, and accelerates case processes by capturing and storing information and improving decision-making by providing the right information in context. A paper document or an online form submission is frequently the starting point for many case processes, such as applications and service requests. A case is then created and a governing business process initiated to process the case, which
typically involves various people and systems to work through the case. As the process progresses, the case may evolve and change, so the process must be flexible enough to allow for human input and guidance as needed.

When input is needed on a loan application, for instance, someone other than Marty can perform a review and add his or her thoughts or decisions to the case—regardless of that person’s location. The information and data that flow into the case lead to human-driven, system-supported decisions that can make your business more agile, efficient, and competitive.

Intelligent case management differs from traditional business process management (BPM) in four key ways:

• The case—not the process—is the organizing principle.
• Workflows are invoked by human decision-making, not just by the upstream process.
• The entire case lifecycle can be automated, not just the business process.
• Fully integrated enterprise content management capabilities are required.

Seven key capabilities are critical for complete intelligent case management:

1. Information capture
2. Data extraction
3. Business process management
4. Content management
5. Compliance and record retention
6. Collaboration (and ad hoc workflow)
7. Customer communication management

Each of these capabilities is typically offered in some form by a variety of vendors, but few offer all seven in an integrated platform. Some tend to specialize in a specific industry, such as healthcare, and focus on a niche within that industry—patient medical records, for example. Although their expertise in that niche might be unsurpassed, their solutions require extensive integration with other products to address business requirements along the entire case lifecycle. Such a requirement can be costly, time-consuming to configure, and lead to gaps in the overall solution. Your particular business environment and use of case management should drive the decision on whether to go with multiple products or choose a single vendor that has an integrated solution.

Let’s look more closely at each of the seven capabilities so that you know exactly what to watch for as you begin the selection process for your solution.

INCREASE EFFICIENCY WITH INFORMATION CAPTURE

How information is captured should be the first thing you consider when evaluating a case management solution.

When you look at your desk, how much paper do you see? If you’re like most people, there’s a lot of it, and you often spend several hours a week wading through it. Now, imagine being a loan processor who sees thousands of home loan applications annually, like Marty.

His job gets a little tougher with every supporting loan document an applicant submits. Data gets stuck on paper instead of becoming easily accessible electronically. With every document submitted, his paper pile gets a little higher.

As a result, it takes days to make a decision on a loan, and his competitors seem to be working faster. From a bottom-line perspective, costs are running high, and his business could be out of compliance if he can’t track everything properly. And it’s not just the mortgage industry that runs into these types of problems.

“A good starting point is to review the benefits of a reusable, vendor-supported case management configuration and score vendor offerings based on critical capabilities.”

GARTNER, 2010
INTELLIGENT CASE MANAGEMENT CAN SIMPLIFY THE PAPER CHASE

Imagine Marty receiving a new loan application. As the application is scanned and electronically captured, a barcode is generated. That barcode entered all of the form’s data into the loan processing system, automatically created a virtual case folder for the applicant, and populated that folder’s metadata with information extracted from the form—before any humans ever saw one piece of information.

New pieces of supporting information flow electronically into the case in a similar way as the case progresses. That information can come from anywhere and anyone, in any size, shape, or format. It can be retrieved from any system in the organization; be captured electronically (scanned, perhaps, or automatically retrieved from email); and then be instantly, automatically attached to the correct subfolder for fast, easy retrieval. Anyone working on the loan application can see the information needed and is authorized to view it.

Because Marty needs to capture, archive, and retain documents of all kinds, he needs Solution A (“A” for All Documents). This solution gives him the ability to capture what’s needed both now and in the future. Plus, it’s typically part of a fully developed case management program that enables users to integrate document capture with other key capabilities, such as BPM, data extraction, data classification, and document management.

Some case management solutions can capture information but not perform extraction, analysis, and auto-classification functions (let’s call these Solution B—“B” for Bare Minimum). These solutions can be good choices if Marty has simple needs and his company doesn’t plan to grow much. Most of these solutions cannot be expanded to include multiple applications, higher volume requirements, distributed capture requirements, and other types of business needs. They cost less up front, but the long-term solution becomes a silo that addresses a small niche problem and requires maintenance of multiple capture systems.

So...where is your company heading? Growth means more customers, which means more documents and more workload for your knowledge workers. Look for a solution that can take information from anywhere and:

• Build a case file around humans and content instead of inflexible business processes
• Incorporate documents from all your systems without the need for expensive partnering, scripting, and integration
• Reuse content across an entire enterprise, regardless of legacy or proprietary systems that might already be in place
• Automatically initiate a process, enter a case flow, and move within and throughout a case lifecycle
• Eliminate mundane and error-prone human data entry
• Create and use high-fidelity e-forms to reduce the costs, bottlenecks, and risks associated with paper-based processing

FINDING AND EFFECTIVELY USING DATA WITH DATA EXTRACTION

It’s not enough for your case management solution to extract data. The bigger issue is, “how easily can I transform paper documents into usable business data?”

Think back for a second to that pile of paper on Marty’s desk. How much actual data is in it? What’s that data doing for him? It’s tough to think strictly in terms of data sometimes, because the world is so focused on other types of information; but street addresses, Social Security numbers, account numbers, and other data is scattered everywhere throughout the documents that typically flow through an organization.

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1 Yahoo! Finance, “Organizations Turn to EMC Documentum xCP to Rapidly Build Case-Based Applications,” 2010.
For Marty, and in many types of businesses, information arrives in two ways: as data (name, address, account numbers, credit details) and as content (email messages, web pages, property photos, insurance binders) that typically arrives electronically.

Content, in particular, can be a showstopper. Most software that can perform data extraction can only do it on predefined forms; intelligent case management software can take content it hasn’t seen before and still perform data extraction. Say that the loan application came from Ohio and arrived attached to an email message. Any case management solution should document the fact that the application is from Ohio—that’s pretty basic. But Marty, based in Michigan, needs to know whether specific laws exist in Ohio concerning consumer loans so that he can manage the compliance issues properly. For example, perhaps he needs to ensure that specific inspections are conducted. To do this, the case management system routes extracted data to a rules engine to identify additional requirements and captures other data to track what has or hasn’t been received.

If his case management solution is Solution A (all data extracted and usable), Marty has optical character recognition (OCR) with the ability to understand the type of document involved. Solution A can automatically find, extract, and classify relevant data. It can scan the inspection report, for instance, and tell Marty which inspections have been done. OCR helps remove human error while doing work for Marty, too: As it reviews the documents that have been scanned in, it extracts the name, Social Security number, address, state, and other information to create or add to a case file with each of those items logged as key metadata. It then takes the case’s metadata to make compliance determinations, route requests to the right process, and trigger checklists for Marty to use to ensure compliance with state laws.

If he used Solution B (basic data extraction) instead, Marty’s day wouldn’t be quite so efficient. Solution B is likely to have basic OCR, but it will not be able to identify and extract data from multiple document types. Plus, it can’t identify and extract data from less structured documents (such as invoices and quotes) or completely unstructured documents (such as correspondence and email messages). With Solution B, Marty would still be manually entering much of the unstructured data that came in and matching up documents to be sure that each one contained the right pieces of data. In addition, the data he entered so painstakingly might or might not be available to others in his company to reuse and repurpose: Only tightly integrated case management solutions allow every piece of data and metadata to be inherited by other documents as they are placed into the case folder.

So...how smart is your data? Can you get to it quickly? Does it think for you? Once you have it, what can you do with it?

Think about how well the case management solution you are considering can:

• Incorporate content from all internal and external sources regardless of format
• Transform content so that users can logically and easily search and organize it
• Index and store data so that it can be reused and repurposed across the enterprise
• Provide customer output documents that are easy to share

### AVOID BOTTLENECKS WITH BPM

Look for a case management solution that includes critical BPM elements that can help control and coordinate activities.

Most cases are a combination of customer service, risk-sensitive decisions, and internal workflows. This combination of human and system activities means that organizations need a solid BPM foundation in their case management solution. Without it, even the simplest case can fall victim to delays and cost overruns.

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Data-entry errors cost insurance companies $68 every time information must be corrected on a claim.

More than 60 percent of the time, human error is the overriding cause of disastrous events such as medical errors and large administrative failures.2

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Think of it this way: If Marty must refer the loan request to a supervisor for review, what do you think will happen if the supervisor suddenly falls ill and is out of the office for several days? Probably nothing. Without BPM, the case comes to a halt waiting for the supervisor not only to return but to dig through his own pile of documents that accumulated during his absence.

In the meantime, the customer waits for a decision, and others involved in the loan are all on hold. The delay is starting to build negative word-of-mouth advertising for Marty’s company.

Add a solid BPM foundation to the mix, however, and that bottleneck won’t exist in the first place. Today’s intelligent case management solutions use BPM technology to automate the decision-making in human steps within business processes by using business rules wherever possible, enforcing deadlines and service level agreements (SLAs). The right BPM system can also help streamline and optimize workflows by routing tasks to the appropriate people or work queues in terms of availability, expertise, workload, geography, and so on.

If Marty (and his boss) had Solution A (automation with BPM), he and the customer could smoothly reach the ultimate decision: acceptance. The intelligent case management solution would drive efficiency and become a speedy, competitive differentiator that helped keep overall loan costs down and customer satisfaction up.

If Solution B (BPM is missing) had been used, the supervisor’s illness could have held up the decision-making process by days or even weeks. A simple workflow capability wouldn’t have caught the delay, and the result would have been an inability to respond quickly to the customer and the market. Worse, a competitor could have stepped in and stolen the business right out from under the original mortgage company.

WHAT IS BPM?

BPM is a business management discipline and a set of technologies that can help organizations to automate, optimize, and effectively monitor and measure business processes involving people and systems. BPM can help case and knowledge workers manage their activities more effectively resulting in increased productivity. A good BPM technology typically includes tools for process modeling and analysis, integration to back-end systems, support for service-oriented architecture, support for business rules and business events management, and business activity monitoring (BAM).

Your intelligent case management solution should include features that:

- Allow you to easily model and analyze processes and regulations or business policies as well as easily change them without help from IT
- Let you determine how data flows between the case and external systems
- Use a model-driven approach to development for greater flexibility
- Include business activity monitoring (BAM) through personalized management dashboards to enable realtime, alerts, and proactive monitoring so you can better mitigate risk and take advantage of opportunities
- Assimilate cases into your business operations for greater insight and visibility
- Scale to handle high-volume transactions, processes, and users
- Validate data against a rules engine for accurate, quick, and consistent decision-making
- Enforce best practices and guidelines
• Offer workload balancing
• Provide an e-forms designer and integration into human workflows
• Provide easy service-based integration with external systems

SAVE TIME WITH CONTENT MANAGEMENT
Move beyond search and access with true content management. Content management ensures that you have a broad, realtime, full view of the information and documentation related to a particular case, such as email messages, images, records, and correspondence. Employees can work with that content at any time, even when disconnected, and quickly retrieve accurate, up-to-date customer information.

But not all content is the same, so you need a system that can manage documents appropriately based on their type. The type of document is meaningful to how the document should be managed: Who is allowed to see it at each lifecycle phase? What format (such as Microsoft Word, PDF, or HTML) will the system generate and present to the different players? Which security level or retention policy should the system apply? Which business process should be initiated? All of these considerations can and should be predefined to minimize the need for repetitive decision-making and menial tasks.

With Solution A (access information easily), the system has a lifecycle template for each of the primary documents within the process or across the organization. A document filed as a “mortgage application” gets treated differently than a “home inspection report” or an “invoice” that is being managed by another process within the system. Each document type has its own phases and policies or actions triggered at appropriate phases.

Solution B (blind to document types) doesn’t treat one file any differently than all the other documents in the system. Access control and version control are important starting points, but without document types and lifecycle templates, the burden still resides with humans to say which policies should be applied and when.

Be sure the intelligent case management solution you select:
• Includes capabilities for creating, locating, viewing, revising, and managing all types of content
• Offers multiple interface options for your users
• Allows content to be shared within and across your organization, through library services and lifecycle management, for example
• Provides version control
• Includes advanced search capabilities
• Manages rights and permissions to create, edit, post, and delete materials
• Protects your company’s intellectual property with current content management technologies

SECURITY AND ACCESS CONTROL
When working through a case, everyone involved needs access to all the information that he or she requires to make the best decision quickly. Many cases, though, most likely include sensitive data (for instance, Social Security numbers or medical test results) that not everyone needs to access. A sophisticated case management system is able to expose only the content in the case that a knowledge worker is authorized to see and requires access to carry out the task.

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REDUCE RISK BY MEETING COMPLIANCE NEEDS

You need more than self-discipline when dealing with compliance issues—you need an automated solution with an auditable electronic trail. And you need one that can electronically track, retain, and manage documents for you.

Corporate compliance is a big deal. A constant stream of new laws and regulations drive how organizations deal with records management and retention procedures, which is great news for citizens and consumers but often a big headache for the business.

For Marty, compliance means providing a clear document trail so that he can prove that he has treated customers fairly and has met all legal requirements. For his company, it also means retaining records as needed to meet state, national, or international requirements. With mortgages, this can mean keeping records indefinitely, given the ability of customers to pay off loans early or wait for full maturity of the loan.

With every manual or procedural error the company makes, the potential for violating regulations increases—and a simple record retention error can come back years later to haunt it.

No pressure, though: Marty’s company is using Solution A (automated compliance), so each case is carefully controlled and is easily audited when necessary. From the second the loan application was submitted, the central case folder managed each supporting document and record and determined the proper retention timing for every item, storing it for fast, easy retrieval. Solution A also maintains a clear and comprehensive document trail: Electronic delivery of a privacy disclosure, for example, can show when a document was sent or received as well as when it was read and signed.

Solution B (barebones records retention) is a reasonable solution for less-regulated industries. When only a few items in a case need to be retained or everything is retained for the same amount of time, then it’s possible to deploy a manual system. But if some documents are retained for five years and others are retained for seven years—and the regulations continue to change—then organizations with a basic system will end up keeping everything. That gets expensive, regardless of whether physical or electronic storage is involved. Plus, any document that remains in the system, no matter how old, can be “discoverable” and add to your legal discovery costs.

The integration of BPM with records management on a unified platform ensures that the business process—not humans—is applying retention policies.

Look for an intelligent case management solution that can automate processes that adhere to regulatory guidelines, and include these capabilities:

- File plan administration organizes recordkeeping requirements across the enterprise with corporate and departmental classification taxonomies
- Compound records improve consistency and clarity by managing multiple documents as a single record
- Physical/paper records extend the solution beyond electronic records to manage paper, microfiche, and other types of physical records
- Records disposal ensures timely disposal, with automation tools for identifying eligible records, requesting authorizations, and scheduling regular deletions
- Configurable audit trails help you prove and verify ongoing compliance
- Digital signatures and encryption security options

If data is missing or incorrect, or if a required disclosure hasn’t been sent, an intelligent case management solution can notify you and help you correct the error. For example, the solution might automatically inform a lender when an annual percentage rate (APR) has changed, so the lender knows to re-disclose APR information.

Look for fast, easy electronic retrieval options to limit the costs associated with the physical storage of records.

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4 AIIM, Business Process Management—Are we making the most of content-driven processes?, 2009.
INTERACT EASILY WITH OTHERS USING A COLLABORATION ENVIRONMENT

Collaboration divides the work while it multiplies success.

How many people do you interact with each day? How much do you rely on them for help and information? Most people interact with several other people in a given day in order to get the information and approvals needed to get the job done.

Many of the decisions within a business process require collaboration, but all potential collaboration points can't be mapped out in advance. There are also different types of collaboration:

- A simple request for information
- A sharing or delegating of job tasks
- The joint writing of a document
- A multi-party discussion around a topic

Marty needs the ability to assign ad hoc tasks: He might need to pull in Susan, for instance, to perform specific responsibilities.

You need an environment that enables ad hoc collaboration, but how do you get there? Marty does it by using the collaborative capabilities built right into Solution A (ad hoc collaboration with automatic tracking). There are several different ways this type of collaboration can be accomplished.

With Solution A, Marty can assign tasks to Susan using a predefined optional step in his application: He clicks a button, a utility process starts, and Susan is assigned the task. When she completes it, it automatically returns to Marty’s queue so he can move on with other decisions in the case.

Or maybe he uses an online wiki that connects employees with external stakeholders (like customers or realtors), or a chat room that is integrated with the case so that all comments and conversations stay in context and are stored. Everyone—internal and external (as approvals are granted)—can work toward the common case goal while capturing and storing the content and data produced during the collaborative process.

Solution B (basic collaboration) includes shared access to documents and the ability to send email from within a process, but it doesn’t provide collaborative spaces and tools within the process so that the comments, discussions, and decisions remain part of the case file. Nor does it enable the case worker to initiate ad hoc process steps that are managed within the process but don’t need to be modeled in advance.
As you explore intelligent case management solutions, seek out tools that offer:

- Predefined, optional collaborative steps that can be easily created without involving developers or other technical steps
- Realtime information exchange options, such as chat rooms and discussion threads
- Content sharing from a variety of sources
- Social networking tools, such as wikis
- Project-based tools in shared workspaces, such as calendars and automatic email alerts
- Inter-enterprise workflows and virtual teams so that contributors can be involved anywhere in the world
- A central repository for information, workflows, and library services
- Security and access control

**IMPROVE CUSTOMER COMMUNICATIONS**

What do your customer communications say about you?

During the case, Marty was able to communicate directly with customers whenever necessary. As the case progressed and the loan was approved and opened, however, Marty’s involvement was complete, and the loan stopped being handled as a case within the organization.

All the customer knows is that Marty is no longer handling the loan. Instead, computer-generated statements are sent monthly with payment details and due dates. Maybe here and there other forms of correspondence are arriving as well, like a welcome kit or marketing materials. What if Marty’s company connected with the customer in each of those statements? Messages could be positive and relevant, with as much value added as possible. Otherwise, the company could lose an opportunity to connect with the customer.

Solution A (added value communications) integrates customer communications management into the entire solution. So, when a statement goes out every month, information from the specific customer’s case drives the actual content and images in the statement to produce relevant and useful messages like this: “Hi, Jane! Many homes need a new roof after 25 years. Because your home was built in 1985 and you’ve paid your mortgage on time for 12 months, you qualify for an extra-low-rate home-equity loan for new roofing projects. Contact us now to learn more!”

“Personalization” isn’t enough, though. When communicating with customers or cross-promoting offers, adding useful information helps build the relationship. If you just re-financed your house and receive a promo for new lower rates, that’s not productive. Helpful reminders and notices build loyalty and customer satisfaction. There are other ways that integrating communications into case management can improve relationships with customers. A loan customer, for instance, can call customer service about a statement that was received, and the call center representative can see the statement within the customer’s case folder. Or, perhaps, payment reminders are sent via email to help customers avoid late charges. The possibilities are almost endless. The right customer communications platform can handle all types of communications, across different delivery channels (print, email, web) and at different times (batch, on-demand, ad hoc). That, in turn, forms personal, longer-lasting, and more profitable relationships with customers.

Of course, Marty’s company could go with Solution B (boring and impersonal) and stick to traditional methods of communication. For example, many companies don’t standardize communications on a single platform—different departments use different systems and even different delivery channels. Along with the inherent costs involved in maintenance of all those platforms, the big tradeoff is a less integrated communications management system that is limited in its ability to incorporate communications within a case.
Be sure any intelligent case management solution you consider includes:

- The ability to pull customer data from the case file’s metadata—and within the entire process
- On-demand functionality to accelerate response time and improve the customer experience
- Ad hoc communication options from within the case—for example, the ability to customize a standard template based on conversations or case data
- Batching options to handle high-volume processes
- Easy integration into the workflow without any human interaction
- Pre-fill e-forms that use data from within the case
- A common integrated user interface (UI) so case workers can send communications within their primary environment without having to open a separate application

**WHICH SOLUTION IS RIGHT FOR YOU?**

Intelligent case management turns interactions with basic content into unique, ever-changing cases involving human judgment, with processes and decisions flowing to meet specific case requirements. Only a solution that includes all seven key intelligent case management capabilities can integrate well with current systems, reduce reliance on paper, help users find documents more easily, offer better protection from a compliance perspective, and—ultimately—help process more cases at a lower cost. The unified platform that an intelligent case management solution offers can solve many different problems, resulting in better user experiences, improved productivity, and decreased investment costs.

Niche solutions, of course, can be used to solve specific, critical business problems. The trouble with niche solutions, however, is that they only work with specific applications, making them difficult and expensive to use in most situations. When you’re ready to buy, talking to vendors is the next step. The checklist included on the pages that follow will help you compare solutions. You’ll find that using the same checklist will help you separate true intelligent case management solutions from those that offer a lot on the surface but don’t quite match up underneath.

**PURCHASE DECISION CHECKLIST**

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<thead>
<tr>
<th>Information capture</th>
<th>Solution A</th>
<th>Solution B</th>
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<tbody>
<tr>
<td><strong>Device integration</strong></td>
<td>Capture documents from hundreds of scanners, multi-function devices, fax, email, and other digital sources</td>
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<tr>
<td><strong>Image-quality checks</strong></td>
<td>Enhance image quality and reduce file-size storage requirements</td>
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<tr>
<td><strong>Document identification</strong></td>
<td>Automatically identify scanned documents based on barcodes, patch codes, or separator sheets</td>
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<tr>
<td><strong>Business system integration</strong></td>
<td>Automatically deliver documents and data into content management systems, workflow processes, and databases</td>
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<tr>
<td><strong>Intelligent document recognition</strong></td>
<td>Recognize all types of documents, replacing expensive manual document-sorting steps</td>
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<tr>
<td>Data extraction</td>
<td>Solution A</td>
<td>Solution B</td>
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<tr>
<td><strong>Data capture</strong></td>
<td>Reduce manual data entry by automatically capturing machine-printed text and barcodes</td>
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<tr>
<td><strong>Data validation</strong></td>
<td>Set business rules to ensure the accuracy of captured data and reduce errors</td>
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<td><strong>Table data capture</strong></td>
<td>Automate the capture of data from tables, including invoices</td>
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<tr>
<td><strong>Multiple recognition technologies</strong></td>
<td>Recognize machine and hand-printed data automatically to minimize the risk of errors</td>
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<tr>
<td><strong>Intelligent data capture</strong></td>
<td>Reduce manual data entry and accelerate processes through intelligent data capture</td>
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<th>Solution A</th>
<th>Solution B</th>
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<tbody>
<tr>
<td><strong>Business activity monitoring (BAM)</strong></td>
<td>Enhance business performance with dashboards, event notifications, and graphical, realtime reporting</td>
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<tr>
<td><strong>Process automation and integration</strong></td>
<td>Coordinate people and disparate systems to leverage existing applications and streamline operations</td>
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<tr>
<td><strong>Work queues</strong></td>
<td>Optimize resources by dynamically balancing workloads and routing work assignments based on business rules</td>
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<tr>
<td><strong>Library of reusable components</strong></td>
<td>Configure and reuse process templates, electronic forms, UI widgets, and system integrations without custom coding</td>
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<tr>
<td><strong>Business process modeling</strong></td>
<td>Develop, validate, and deploy models for automating structured and human processes</td>
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<tr>
<td>Content management</td>
<td>Solution A</td>
<td>Solution B</td>
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<tr>
<td><strong>Enterprise integration</strong></td>
<td>Includes capabilities for creating, locating, viewing, revising, and managing all types of content</td>
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<tr>
<td><strong>UI</strong></td>
<td>Offers multiple interface options for users</td>
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<tr>
<td><strong>Security and access control</strong></td>
<td>Exposes content for authorized workers and requires access to carry out the task and provides versioning controls</td>
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<tr>
<td><strong>Lifecycle templates</strong></td>
<td>Allows for different document types to have specific phases and policies or actions triggered at appropriate times</td>
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<tr>
<td><strong>Search capabilities</strong></td>
<td>Includes advanced search capabilities where information is visible and accessible to appropriate parties at all times</td>
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<tr>
<td><strong>Compliance and record retention</strong></td>
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<tr>
<td><strong>Conditional retention policies</strong></td>
<td>Automate records requirements with event-based retention for workflows and business processes</td>
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<tr>
<td><strong>Automatic protections</strong></td>
<td>Apply policies automatically to minimize user involvement and maximize policy adherence</td>
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<tr>
<td><strong>Hold application and management</strong></td>
<td>Suspend disposition based on investigation, and provide an interface with audit trails for the legal team</td>
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<tr>
<td><strong>Automatic disposal</strong></td>
<td>Ensure the systematic disposal of non-records content when no retention policy or litigation hold has been applied</td>
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<tr>
<td><strong>File plan</strong></td>
<td>Classify records across the organization using a hierarchical folder structure</td>
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<tr>
<td>Collaboration and ad hoc workflow</td>
<td>Solution A</td>
<td>Solution B</td>
</tr>
<tr>
<td>-------------------------------</td>
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<tr>
<td>Flexible process changes</td>
<td>Apply user-defined configuration with predefined, optional collaborative steps instead of a developer-oriented coding approach</td>
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<tr>
<td>Cross-functional and decision-intensive</td>
<td>Share content from a variety of sources using non-deterministic workflows</td>
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<tr>
<td>People-, process-, and information-intensive</td>
<td>Create an atmosphere in which collective judgment, experience, and knowledge are gathered through the use of social networking and other collaborative tools</td>
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<tr>
<td>Shared or delegated tasks</td>
<td>Employ project-based tools in shared workspaces, such as calendars, task lists, and automatic email alerts</td>
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<tr>
<td>Central repository</td>
<td>Manage information, workflows, and library services through the use of a central repository</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer communication management</th>
<th>Solution A</th>
<th>Solution B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multichannel delivery</td>
<td>Generate communications in customer-preferred formats, including email, print, web, and mobile devices</td>
<td></td>
</tr>
<tr>
<td>Integration with case management system</td>
<td>Pull customer data from the case file to increase relevance and archive output with metadata</td>
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<tr>
<td>Enterprise document generation</td>
<td>Consolidate multiple single-purpose and disparate systems onto a single platform for all types of communications</td>
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<tr>
<td>On-demand and interactive output</td>
<td>Provide on-demand, interactive, and batch document generation capabilities from a single, flexible system</td>
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<tr>
<td>Familiar document design tools</td>
<td>Easily create document templates using plug-ins for popular design tools from Microsoft and Adobe</td>
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</tr>
</tbody>
</table>
ABOUT EMC

EMC Corporation (NYSE: EMC) is the world’s leading developer and provider of information infrastructure technology and solutions that enable organizations of all sizes to transform the way they compete and create value from their information. Information about EMC’s products and services can be found at www.EMC.com.