FOR: Enterprise Architecture Professionals

The Forrester Wave™: Multichannel Capture, Q3 2012

by Alan Weintraub and Craig Le Clair, August 15, 2012

KEY TAKEAWAYS

Well-Balanced Leaders Drive The Market

In Forrester's 18-criteria evaluation of multichannel capture vendors, we found that Kofax and EMC emerged as the strongest multichannel capture offerings across all categories.

Capture Extends Well Beyond Paper Use Case

Capture has extended beyond the single dimension of paper scanning in one or two primary locations to become the multichannel, distributed onramp for acquiring information. In the next five years, capture will incorporate advanced analytics, mobile solutions, BPM and case management, and stronger integration with enterprise production platforms.

On-Demand Capture At "Point Of Service" Will Expand

Office staff and point-of-service workers who capture information to complete a transaction invoke so-called on-demand capture, i.e., the ability to capture information at the point of origin utilizing standalone scanners, multifunction devices, and mobility. This will be the growth market for the multichannel capture market.

The Forrester Wave™: Multichannel Capture, Q3 2012

Vendors Move Toward Mature Service Offerings

by Alan Weintraub and Craig Le Clair
with Leslie Owens and Julian Keenan

WHY READ THIS REPORT

If you think capture and imaging is old technology, you're correct; it has been around for more than twenty years. But there are still a lot of paper-based processes out there, and Forrester clients still spend significant dollars on systems to support them. More importantly, capture extends beyond paper to email with PDFs, allowing for new inputs through mobile devices to handle increased volume from office and point-of-service locations. During the next five years, capture platforms will incorporate advanced analytics, mobile solutions, business process management (BPM) and case management, and stronger integration with enterprise production platforms. In Forrester's 18-criteria evaluation of capture vendors, we evaluated offerings from Brainware, EMC, IBM, Itesoft, Kofax, Notable Solutions, OpenText, and Top Image Systems.

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Notes & Resources

Forrester conducted vendor surveys, product demos, and customer references for eight vendors in the multichannel capture market.

Related Research Documents

Prepare For Paper Decline: Offload Output To Document Processing Service Providers
September 20, 2011

The State Of The Document Processing Services Industry 2011
March 22, 2011

CAPTURE MARKET SPLINTERING INTO THREE SEGMENTS

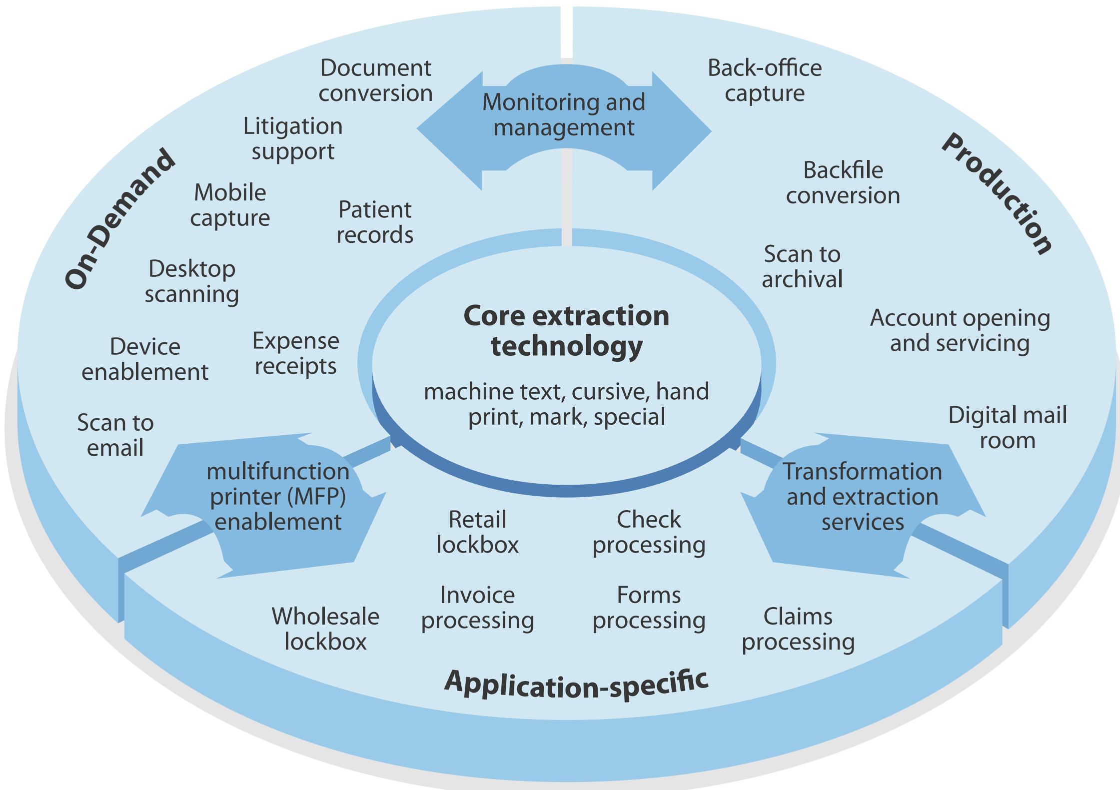
Forrester divides the capture market into its three primary use cases. Improvements in distributed capture devices — such as office multifunction printers (MFPs) — further specialization of providers for unique applications, and declining volumes for centralized scanning operations drive the capture market into three distinct segments (see Figure 1):

- **On-demand and point-of-service capture represent the growth area.** On-demand capture is supported by standalone scanners and multifunction devices with enabled scanning. These systems support office staff and point-of-service workers who capture information to complete a transaction (i.e., scanning and capture is not their full-time job). Common scanning scenarios for the office include litigation support, expense receipts, medical forms, scan to email, and specific low-volume archiving use cases. On-demand capture is growing due to more advanced scanning capability on office equipment. On-demand capture can accommodate the expansion of process boundaries to the point of service and decreases volume from production operations. This activity improves service levels and reduces cycle time for office processes. Vendors to consider include Nuance, which now owns E-Copy, for enabling desktop scanning, and NSI AutoStore, which is reviewed in this research.[1]

- **Production (batch) capture still shows market viability . . . but declining volumes.** The production capture area refers to centralized pooled or shared scanning operations with full-time staff. Organizationally, this function often aligns with mailrooms or other centralized operations that may be a shared service. The trend to move to more shared scanning operations is supported by the use of more sophisticated optical character recognition (OCR), forms processing, and content awareness to reduce the need for staff to perform post-scan activities.[2] All of the vendors reviewed in this research provide this functionality.

- **Application-specific capture solutions focus on specialized processes:** Application-specific capture refers to use cases and solutions dedicated to recurring, unique, and special processes that support a business activity. Examples of application specific capture include invoice processing, lockbox check or remittance processing, or ATM check scanning. Application-specific use cases tie closely with business process management, such as the requirement to move data from paper invoices into an enterprise resource planning (ERP) system. Providers in this market include ReadSoft, a leader in invoice processing applications, and Oracle Document Capture (formerly Captovation). Kofax, OpenText, and Brainware also target this segment.

Figure 1 Capture Applications Have Expanded And Specialized



78702 Source: Forrester Research, Inc.

ANALYTICS AND MOBILE WILL TAKE CAPTURE TO THE NEXT LEVEL

You would think Forrester's forecast of paper decline for transactional documents would transform capture into a niche market. After all, if there is less paper, there's less need for software to capture it. But a wide variety of document types with varied requirements, the infusion of mobile capture, and analytics have injected new life into this market.

Analytics Is The New Battleground For Capture

Analytics gets a lot of attention these days. Decision support tools and intelligent technology detect patterns and trends for additional business insight and serve as the foundation for a personalized online customer experience. But these exciting areas tell only part of the story. Analytics is a horizontal technology being incorporated by leading capture providers as well. Unfortunately, in describing what they do, providers tend to string together bits of science with age-old capture techniques; it can be difficult to understand what they can and can't do. The fact that good results often use different techniques in combination exacerbates the confusion. In the end:

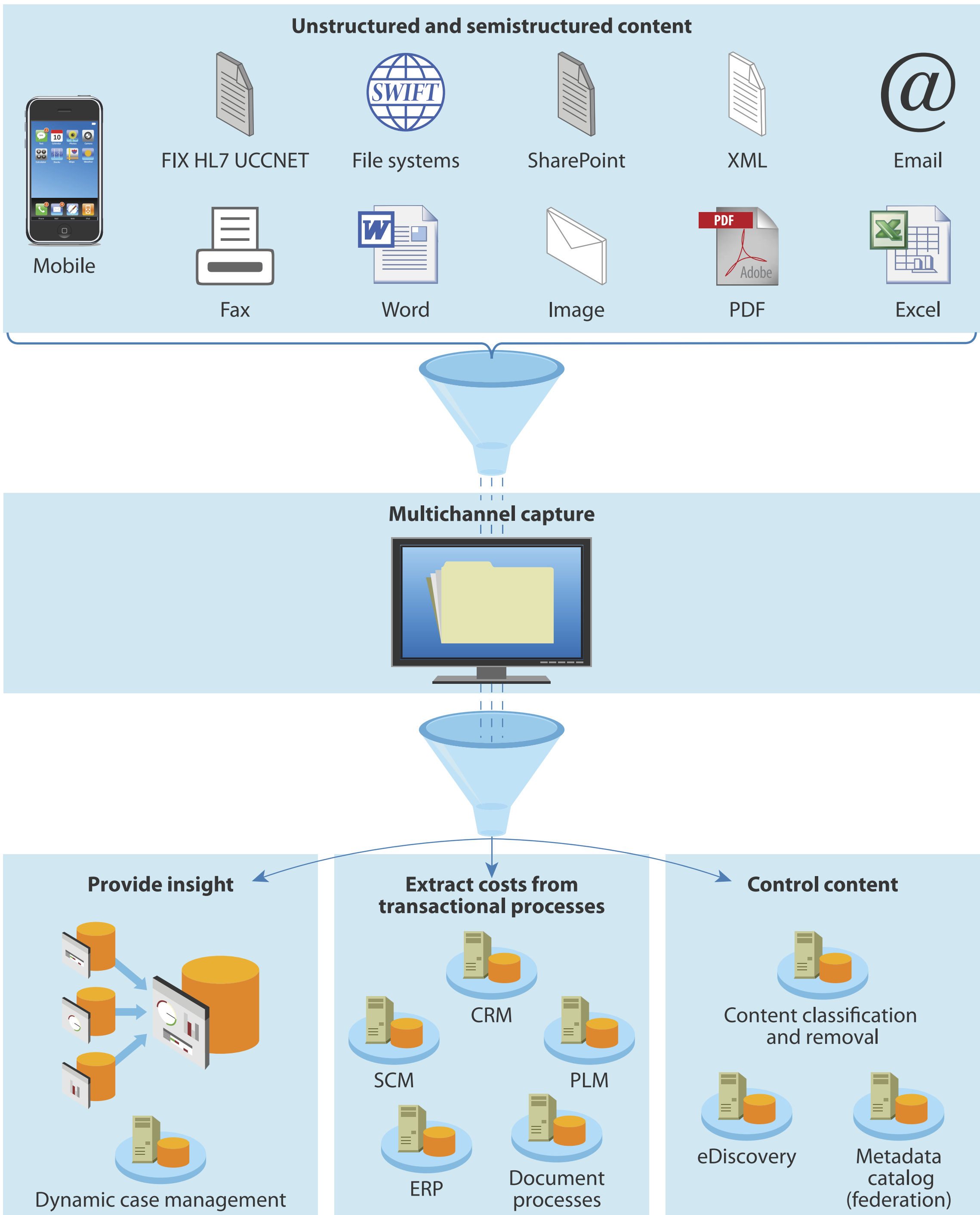
- **Applied intelligence has improved data extraction.** For highly structured and predictable documents (a survey for example), zonal OCR and mark sense will usually work to get accurate extraction results. Clever analytics really help with semistructured documents, such as a purchase order that may be formatted differently for the 500 or 1,000 vendors a company buys from. For such documents, it helps to create a library of templates — with various rules and techniques — that will work to improve extraction accuracy for a particular form type. Templates will use various classification and analytic techniques to match a form as it comes in and apply the best practice rules.

- **Techniques have improved for template creation and management.** Flexible and adaptive template management maximizes extraction performance and simplifies administration. When a document enters the system, a key field, such as purchase order number, or some characteristic of the document based on content or structure is used to identify a template to apply the best rules and techniques. The templates can be predefined based on testing in deployment and/or use various levels of dynamic learning — i.e., update rules associated with the template based on continuous review of forms coming in. Different techniques are often used in combination. For example, most providers support more than three classification methods or technologies (layout, content, hierarchical, keyword) that can be used in combination.[3] For this evaluation, our test was simple: We examined each vendor's capability, through demonstration, for "sight unseen" extraction, with an expectation of good (greater than 80%) extraction accuracy with no preconfigured templates or the associated aids.

- **OCR and core extraction are reduced to commodity status.** Ten years ago, you could compare capture vendors on the quality of their OCR engines. Today most use the same core extraction technology that includes support for full-page OCR, zonal OCR, hand-printed text, mark sense, and barcode recognition. These core extraction features should no longer be key criteria when evaluating vendors.

- **Providers can condition unstructured text for the structured data world.** Raw unstructured text can't simply be placed into the structured world and still be meaningful. There is too much data, or data with the same elements that have different meanings, with alternate spellings, or with an incredible amount of irrelevant information. Think of your average email string. All of these limitations of unstructured text become apparent when unstructured data is moved into the structured environment without proper conditioning (see Figure 2). Capture vendors will use multiple techniques to identify relevant text for extraction and incorporation into production applications. These techniques include entity extraction, autoclassification, document learning, and multiple OCR engine voting.

Figure 2 Capture Can Bring Structured And Unstructured Content



78702 Source: Forrester Research, Inc.

Mobile Capture Will Improve Point-Of-Service Processes

Mobility and cloud-based applications will change business processes radically over the next five years.[4] The mobile device will initiate a high percentage of transactions and will be used to complete the transaction in real time. Straight-through transactions enhance customer experience and improve process efficiency. Top use cases today for mobile and cloud-based capture include mobile check deposit, field service, mobile healthcare, and trailing documents for loan origination and onboarding apps. To get there, the market needs:

- **Advanced image processing to improve the quality and manageability of the image.** Vendors are responding to the requirement of advanced image processing. For example, a key focus of Mitek Systems is to automatically correct problems such as wrinkled, skewed, or distorted checks and poor lighting conditions in photos. Kofax has extended its VirtualReScan (VRS) technology to address both image size and quality. Top Image Systems has also added mobile capture capabilities focused on core banking functionality, such as check processing and bill payment.

- **Tools to treat mobile content with the same care as traditional content.** Just because a picture was captured from a phone doesn't mean it doesn't need to go through the capture process. This process includes indexing, metadata enhancement, validation against business rules, databases, classification for records management, and the appropriate workflow.

Other Capture Vendors Round Out The Market

Forrester was unable to include all of the many capture providers in the formal evaluation. Some of these are good choices based on local support, industry or application capabilities, or cost effectiveness. Hyland OnBase continues to enhance its capture platform and is likely to join the mainstream capture market. Isis Papyrus, a Swiss-based vendor, provides the on-ramp for the Isis dynamic case management and BPM functionality. AnyDoc Software, Autonomy Cardiff TeleForm, and Ricoh GlobalScan also have a strong presence in the capture market. Look at Mitek Systems' advanced mobile capture solutions. Mitek's mobile remote deposit capture solution, Mobile Deposit, enables consumers and businesses to make deposits by taking a photo of a check with a camera-enabled smartphone or tablet.

- **ReadSoft for invoice processing.** ReadSoft software extracts information from business documents such as invoices, forms, claims, and orders, whether they are electronic or on paper. The extracted information is used for automated document sorting, information matching against ERP systems, and approval workflows. If invoice processing is your goal, you should consider ReadSoft.

- **KnowledgeLake for the Microsoft environment.** KnowledgeLake has a strong share of the capture market for Microsoft SharePoint. One of our criteria for inclusion was the ability for the capture provider to support an assortment of enterprise content management (ECM) solutions as a repository. While KnowledgeLake, through integration, can support other solutions, its stated focus is on capturing and managing content in the Microsoft environment. Enterprises looking for a SharePoint-oriented capture solution should include KnowledgeLake in their search.

- **Oracle Document Capture for integration with Oracle BPM and packaged apps.** Oracle Document Capture (formerly Captovation) has been more tightly integrated with Oracle's broad product set in the WebCenter Content Management suite of functionality. WebCenter Content Management is designed to provide Oracle applications and portal with ECM capabilities. In addition, Oracle Forms provides access to Brainware's analytics through an original equipment manager (OEM) arrangement. Oracle Document Capture is the onramp for information acquisition to the ECM set of functionalities.

CAPTURE VENDORS REPRESENT A MIX OF STRENGTH AND FOCUS

Forrester included eight vendors in the assessment: Brainware, EMC, IBM, Itesoft, Kofax, Notable Solutions, OpenText, and Top Image Systems (see Figure 3). For inclusion in this evaluation, the enterprise capture software solution must:

- **Offer core document and image capture functionality.** At a minimum, the vendor solution must support scan, index, quality review, export, full-page optical character recognition, image cleanup tools, and barcode and mark sense recognition.

- **Integrate with multiple enterprise content management systems.** The vendor solutions must not be tied only to their own content repository but be able to export captured documents and images to other enterprise content management and/or operational systems (e.g., SAP, salesforce.com, etc.).

- **Be sold as a standalone product.** The document and image capture product must be able to be sold as a standalone product, not tied to any other product sold by the vendor.

- **Have innovative solutions or significant market share.** We considered vendors on dimensions of revenue, employees, and the size of their networks in terms of customers, partners, and installed base. Furthermore, we included providers that were innovators in developing new approaches to meet capture needs.

- **Generate strong customer interest.** Through Forrester inquiries, consulting, media requests, and ongoing conversations with players in the market, we developed an understanding of the demand for vendors and solutions included in this evaluation.

Figure 3 Evaluated Vendors: Product Information And Selection Criteria

Vendor	Product evaluated	Product version evaluated	Version release date
Brainware	Distiller	N/A	N/A
EMC	Captiva InputAccel, Dispatcher, and eInput	6.5; 6.5; 2.2	March 2011; March 2011; September 2011
IBM	Datacap	8.0.1	March 2011
Itesoft	FreeMind	2.5	2012
Kofax	Kofax Capture (KC), Kofax Transformation Modules (KTM), Kofax Front Office Server (KFS), Kofax Mobile Capture, Kofax Web Capture, Kofax Communication Server (KCS), Kofax MarkView, Kofax AP Advisor, Kofax SupplierExpress, Kofax TotalAgility	10.0; 5.5; 3.5; 1.0, 10.1; 9.1; 7.1; 3.5; 5.0; 5.4	February 2012; May 2011; January 2012; Q2 2012; March 2012; February 2011; November 2011; January 2012
Notable Solutions	AutoStore	N/A	N/A
OpenText	OpenText Capture Center	10.2	March 2012
Top Image Systems	eFLOW	4.5	N/A

Vendor selection criteria

Core document and image capture functionality. The vendor solution must at a minimum support the following functionality:
• Scan, index, quality review, and export.
• Full page optical character recognition.
• Image cleanup tools.
• Barcode and mark sense recognition.

Multiple enterprise content management integrations. The vendor solutions must not be tied only to their own content repository but be able to export captured documents and images to other enterprise content management and/or operational systems (e.g., SAP, salesforce.com, etc.)

Sold as a standalone product. The document and image capture product must be able to be sold as a standalone product, not tied to any other product sold by the vendor.

Significant experience and demonstrable success in the implementation of document and image capture solutions for enterprise-class organizations. This category comprises vendor solutions primarily targeted at organizations with revenues of more than $1 billion per year. Document and image capture vendors focused on enterprise-class organizations typically offer a targeted set of functionalities in support of solutions focused on the support of critical company operations. Forrester selected vendors that have demonstrable success with customers in this market segment.

Interest from Forrester clients. Forrester clients repeatedly ask about the included vendors within the context of inquiry, advisory, and consulting.

Source: Forrester Research, Inc.

MULTICHANNEL CAPTURE EVALUATION OVERVIEW

To assess the state of the multichannel capture market and how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top multichannel capture vendors. After examining past research, assessing user needs, and interviewing vendors and experts, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 18 criteria, which we grouped into three high-level buckets:

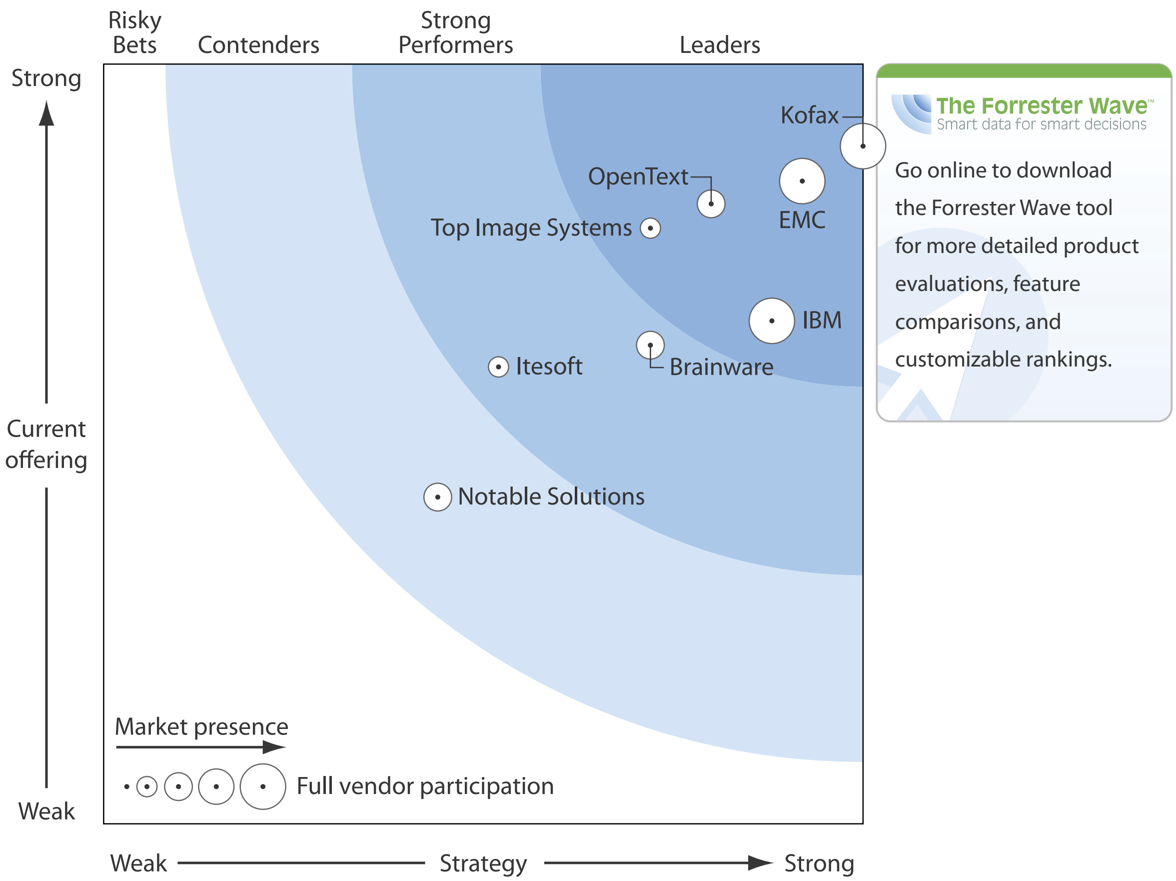
- **Current offering.** We reviewed functionality across platform support, print policy software, mobility solution, global delivery, project management, sustainability, and other criteria.

- **Strategy.** We reviewed the vendors' planned enhancements across criteria, as well as partnership approaches, corporate strategy, and target markets.

- **Market presence.** We looked at installed base, revenue growth, services, number of employees, and technology partners. We estimated numbers where vendors would not disclose actual figures. Our evaluation uncovered a market in which multichannel capture continues to thrive and expand (see Figure 4).

We encourage readers to use this evaluation of the multichannel capture market as a starting point only; you should view detailed product evaluations and adapt the criteria weightings to fit your individual needs through the Forrester Wave Excel-based vendor comparison tool. Enterprises should use the custom Wave features of our model to emphasize the use case area of interest — where the goal may not be complete enterprise coverage.

Figure 4 Forrester Wave™: Multichannel Capture, Q3 2012



Source: Forrester Research, Inc.

Figure 4 Forrester Wave™: Multichannel Capture, Q3 2012 (Cont.)

	Forrester's weighting	Brainware	EMC	IBM	Itesoft	Kofax	Notable Solutions	OpenText	Top Image Systems
CURRENT OFFERING	50%	3.15	4.23	3.31	3.00	4.46	2.15	4.08	3.92
Intelligent data capture	8%	5.00	5.00	5.00	5.00	3.00	1.00	3.00	5.00
OCR support	8%	3.00	3.00	3.00	3.00	3.00	3.00	5.00	5.00
Language support	8%	5.00	3.00	1.00	3.00	5.00	3.00	5.00	5.00
Business process management	8%	3.00	3.00	5.00	2.00	5.00	1.00	5.00	3.00
Web-based capture	8%	2.00	4.00	5.00	3.00	4.00	2.00	3.00	4.00
Document classification	8%	5.00	5.00	5.00	5.00	5.00	1.00	5.00	5.00
Line-of-business (LOB) applications	8%	3.00	5.00	3.00	3.00	5.00	3.00	3.00	3.00
MFP integration	8%	1.00	3.00	1.00	1.00	3.00	5.00	3.00	1.00
Integration capabilities	8%	3.00	5.00	5.00	3.00	5.00	3.00	3.00	3.00
Multitiered architecture	8%	5.00	5.00	3.00	5.00	5.00	3.00	5.00	5.00
Multichannel input	8%	2.00	4.00	2.00	2.00	5.00	2.00	5.00	4.00
Production capture	8%	3.00	5.00	5.00	3.00	5.00	0.00	3.00	3.00
Mobile capture	8%	1.00	5.00	0.00	1.00	5.00	1.00	5.00	5.00
STRATEGY	50%	3.60	4.60	4.40	2.60	5.00	2.20	4.00	3.60
Product strategy	60%	4.00	5.00	4.00	3.00	5.00	3.00	4.00	4.00
Whole solution strategy	40%	3.00	4.00	5.00	2.00	5.00	1.00	4.00	3.00
Licensing and pricing	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARKET PRESENCE	0%	2.50	4.17	4.50	2.00	4.67	2.17	2.83	1.17
Multichannel capture revenue	50%	2.00	4.00	4.00	2.00	5.00	1.00	2.00	1.00
Customer base	50%	3.00	4.33	5.00	2.00	4.33	3.33	3.67	1.33

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

VENDOR PROFILES: CAPTURE DIVERSIFIES BEYOND PAPER

Our Wave research shows that vendor offerings are quite diverse, each with a unique set of strengths and weaknesses. For example, traditional structured output providers have proven support for high-volume batch production and have a strong foothold to meet the largest enterprise demands for structured applications — e.g., utilities, telecom, and brokerage statements — that require complex pre- and post-processing.

Leaders Show Strong Process Directions

Capture was once specialized on production scanning because this was the primary use case and extremely costly and challenging for enterprises. It now blends electronics, mobile, and other channels and has added advanced analytics:

- **Kofax extends capture with BPM acquisition.** Kofax leads the capture segment, and with recent acquisitions it can provide more complete and strategic solutions. While 170 Systems provides an invoice processing solution, the acquisition of Singularity, a leader in Forrester's Wave on dynamic case management, provides horizontal and flexible process transformation capability. Kofax product development is guided by three components: capturing content at the point of origination; touchless processing, i.e., eliminating or minimizing human intervention throughout a business process; and enterprise-ready strategy, i.e., ensuring compliance and interoperability with IT infrastructure and applications. The recent acquisition of Atalasoft for web-based capture supports Kofax's point of origination strategy component, as does its move into the mobile capture area. The recent acquisition of Singularity for BPM and dynamic case management supports the touchless processing and enterprise-ready strategy components. As with any company experiencing growth through acquisition, Kofax faces the challenge of integrating the products to support seamless solutions.

- **EMC leverages capture to streamline the business process.** EMC Captiva is an extensible capture solution focused on increasing the ability to automatically identify data, using both its own proprietary OCR engine and licensed OCR engines to transform mixed and unstructured documents into usable business data with minimal human interaction. Faced with the reputation of being a complex implementation, EMC recently introduced a new version of Captiva with point-and-click features that strive to make implementations less complex. Captiva capture functionality is integrated into EMC's comprehensive case management platform to provide the on-ramp to the solution platform. EMC enables businesses to react to challenges and opportunities in real time by extending the point of capture and the types of devices to the front office, to mobile devices, to new devices, and outside organizational boundaries. EMC has moved capture support to the cloud by optimizing for private, hybrid, and public cloud infrastructures via EMC OnDemand.

- **IBM focuses on solutions that turn information into insights.** IBM has made Datacap a key component in its ECM portfolio since its acquisition in 2010. IBM Laboratory innovations focused on text, content, and predictive analytics are integrated into the core capabilities to provide advanced recognition. IBM combines these enhancements with a unique licensing model, one that is based on server and user licenses instead of click charges, to make Datacap the fastest growing product in the IBM ECM portfolio. IBM's strategy is to lead with Datacap as the future platform for all capture applications. This can present a challenge to organizations when deciding whether to stay with their current capture solution or move to Datacap to take full advantage of IBM's capture automation.

- **OpenText's capture is an integral component of its overall product portfolio.** Capture is a building block of the OpenText ECM Suite and overall product portfolio strategy, including OpenText Business Process Solutions. OpenText is a leader in the SAP market and the only one fully endorsed by SAP, which resells OpenText solutions. OpenText's capture solutions are part of a single, integrated family that is designed, built, and deployed as part of a comprehensive, end-to-end business solution. While the integration of capture into the overall ECM suite is continually enhanced, it continues to be sold as an independent capture product capable of integrating with other business applications. OpenText will continue to enhance a product strategy that distinctly articulates the integration of capture into its business solutions.

- **Top Image Systems (TIS) focuses on enabling straight-through processing.** TIS's technology strategy is for eFLOW to be a scalable, flexible, and fast capture solution. eFLOW's underlying core technology combines recognition engines with creation of virtual engines, which are basically engines of engines, in order to increase terms of recognition accuracy. eFLOW provides the ability to automate processes that are triggered by capturing documents via mobile devices using software that resides on the mobile handset itself. TIS focuses on vertical domain solutions that implement complex workflows that drive return on investment (ROI) through straight-through processing. As a company focused primarily on Europe, the Middle East, and Asia (EMEA), TIS faces the challenge of crossing the ocean and repeating its success in the US.

Strong Performers Have Balance And Solid Performance

Strong performers have well-balanced offerings, in some cases are focused on specific geographic areas, and may be a lower-cost option:

- **Brainware focuses on upstream analytics.** Lexmark acquired Brainware in 2011 as part of a series of acquisitions to strengthen its position in the ECM market, along with Perceptive Software in 2010 and Pallas Athena in 2011 (BPM and case management), to help Lexmark focus on point-of-service applications for key verticals such as retail, pharmacy, and healthcare, as well as build an independent ECM and BPM capability.[5] The integration of Brainware into the Perceptive Software division of Lexmark became real with the May 2012 release of Distiller v5.4, also referred to as Perceptive Capture, powered by Brainware. Additional acquisitions will further strengthen the portfolio, including the search platform ISYS as well as Interact (to connect to disparate systems and repositories). Overall, these actions expand Brainware's value proposition for high-end data capture. And as part of the May 2012 release, too late for this evaluation, Lexmark announced the general availability of Lexmark Distributed Intelligent Capture that combines Lexmark's MFP with Brainware's intelligent data capture to automate sorting (classification) and data extraction directly from the device. Brainware will continue to differentiate on advanced analytics applied to capture — meaning tools requiring no or limited templates, zones, anchors, or keywords to classify documents and extract data. Forrester believes analytics is the emerging battleground for the capture segment. Forrester anticipates new products that put "intelligence" for classification and extraction into MFPs along with continued development and deployment of product modules to provide access via a web client.

- **Itesoft delivers a complete solution with client-specific tailoring.** Itesoft is a French public company with approximately 200 employees and 650 customers, covering France, the UK, Germany, Switzerland, and Belgium and moving more aggressively into the US. The vendor's strategy is to focus the FreeMind capture line on Microsoft technology components and develop a service-based approach to unbundle individual capabilities (e.g., classification) without requiring a full system upgrade. The strategy is to include mobility and cloud-based integration and delivery models, most likely in a hybrid fashion to maximize performance. Itesoft's expansion beyond its current EMEA customer base comes with the challenges faced by most companies when moving from a localized to a global organization.

Contender Is A Bit More Specialized

The contender is focused more on a specific segment of the market instead of a broad set of capabilities. Today's capture market is evolving a production scanning facility to emphasize capture at the point of origination or from the distributed office environment. Notable Solutions' focus on distributed capture is well positioned for this emerging market while providing capture capabilities that easily extend into the traditional batch capture market. In particular:

- **Notable Solutions automates the flow of information centered on the office worker.** Notable Solutions (NSI) describes its focus as "transaction-based" capture and specializes in the non-capture-trained employee trying to complete a task. Forrester calls this on-demand capture and believes it is the fastest growing area for the capture market. NSI specializes in enabling office devices for capture and integrates with all leading printing and imaging manufacturers. NSI's new Smarticket, for example, allows personalized scanning workflows with bar-coded cover sheets corresponding to a specific process, such as invoice processing, accounts receivable, loan documentation, or shipping records. While not a strong candidate for traditional production and batch capture that requires advanced analytics capabilities, NSI is a likely winner for increased volume of on-demand capture applications. NSI's challenges will be competing in a changing market that is not quite ready to move all production scanning to more point-of-origin capture.

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 4 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.

- **Product demos.** We asked vendors to conduct demonstrations of their product's functionality. We used findings from these product demos to validate details of each vendor's product capabilities.

- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with several of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of questionnaires, demos, and discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and we encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve.

ENDNOTES

1 Nuance recently purchased E-copy, one of the leading device enablement providers. It provides a middleware layer that is certified with multiple MFP providers. In this way, the enterprise can write capture apps directly to an application programming interface (API) and not worry about difference among the arcane operation environments of Canon, Ricoh, HP, Xerox, and other manufacturers.

2 Volumes are declining for production paper-based capture. This is best seen from declines in transactional output produced by the document processing services industry — which accounts for about half of printed outbound transactional content. See the March 22, 2011, "The State Of The Document Processing Services Industry 2011" report.

3 Some forms types have different shapes, such as invoices, and can be easily categorized by their shape, sometimes called "fingerprinting." But what if the shape of the form is very similar — say a one-page letter? In this case shape does not help, but content analytics can look at the content and sort the documents. Keyword searching is also used to match a form to the right template as well as to build hierarchies. Advanced capture providers are combining different techniques: first use a bar code, then OCR, then fingerprint, and then content analytics.

4 Forrester has looked at what processes will be like in 2020 and expects a high percentage to be initiated from the mobile environment. Please see the April 16, 2012, "The Process-Driven Business Of 2020" report.

5 In June 2010, Lexmark announced that it acquired Perceptive Software, one of the fastest growing ECM providers in the market. With the acquisition, Lexmark builds upon and strengthens its portfolio with document imaging, document management, workflow, and records/information management (RIM) offerings in both on-premises and hosted/software-as-a-service (SaaS) environments. The Perceptive ECM software platform is designed for easy configuration/integration with a large number of ERP, CRM, and line-of-business applications, and the adaptable workflow enables users to access and work with content according to their assigned tasks and activities. With these added capabilities, Lexmark now has a complementary software business that is aligned with its existing industry-focused value proposition.

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