The Forrester Wave™: Smart Process Applications, Q2 2013
by Andrew Bartels and Connie Moore, April 24, 2013

KEY TAKEAWAYS

Smart Process App Vendors Help CIOs Improve Human-Based Business Processes
The opportunities to use technology to automate processes through the elimination of manual work are dwindling. Humans are essential elements in the remaining business processes and activities. Smart process apps and vendors help make these people smarter and more effective.

Smart Process Apps Are Evolving From Cases To Projects And Operations
The smart process app market is evolving as it grows, shifting from improving case activities to tackling more complex, multiperson projects and operations. This Forrester Wave evaluation looks at both the current capabilities of vendors to support cases and their potential to support projects and operations.

Case Strength And Future Project Support Are Differentiators In Smart Process Apps
The smart process app vendors in our evaluation offer good to very good support for case activities, which matters to CIOs looking for solutions to improve these activities. But future growth and demand will be for project and operations solutions, and different vendors lead in this strategic dimension.
The Forrester Wave™: Smart Process Applications, Q2 2013

The 12 Smart Process App Vendors That Matter Most Today And How They Stack Up
by Andrew Bartels and Connie Moore
with Christopher Mines, Craig Le Clair, Clay Richardson, Derek Miers, and Joanna Clark

WHY READ THIS REPORT

Smart process applications are a new and emerging category of applications designed to help CIOs and their firms improve the effectiveness of their human-centric business activities. But finding the right vendor for these applications is a challenge. Most of the leading vendors today provide products for case-based activities that involve just a handful of people doing relatively structured tasks, yet businesses and governments will increasingly want products that can support service, project, and operational activities that involve more people performing more ad hoc activities. To help CIOs find the right vendor partners for improving this full spectrum of human-based processes, Forrester conducted a 15-criteria evaluation of 12 software vendors — Appian, Cordys, EMC, IBM, JDA Software, Kana Software, Kofax, Lexmark, OpenText, Pegasystems, salesforce.com, and SAP — that we consider are the leading vendors today in the category. This emerging product category does not yet have any dominant Leaders among the vendors, but there are seven vendors that are positioned at the fringes of Leader status by either current offering or strategy and another five vendors who are Strong Performers and Contenders with the potential to move into a leadership position in the future.

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Forrester conducted product evaluations in November and December 2012 and interviewed 12 vendor companies: Appian, Cordys, EMC, IBM, JDA Software, Kana Software, Kofax, Lexmark, OpenText, Pegasystems, salesforce.com, and SAP.

Related Research Document

Smart Process Applications Fill A Big Business Gap
August 8, 2012
SMART PROCESS APPS ARE THE FUTURE OF APPLICATIONS

Forrester introduced the concept of smart process apps in September 2012. We described them as a new category of software applications that focused on collaborative business activities and processes, which have largely been left untouched by earlier generations of applications that focused on automating transactional processes.

- **In a transactional process app, the end goal is as little human involvement as possible.** The ideal is a fully automated process. People may of course initiate the transaction (such as a purchase) or be a recipient of the results of a transaction system. They may also be involved in handling exceptions, though the goal there is to minimize that over time. Examples would be applications for core human resource management, eCommerce, sales force automation, invoice automation and procurement, core financial management, and the like.

- **In a smart process app, people are an inherent and desired part of the process or activity.** The end goal is to make people more effective and productive participants in a business process, not to reduce or eliminate their involvement. These human-based processes or activities range from relatively simple cases involving one to three people in handling and resolving a case, to service delivery situations involving similar numbers of people handling less predictable and structured service problems, to some or many people working on a project over time, to many people working on a complex operation in unstructured conditions. Software to improve this range of human-based activities or processes is what we include in smart process apps.

In reality, there is no bright line that divides transactional process apps from smart process apps. That’s because there is a spectrum of business processes that ranges from those with minimal human involvement to those with intense human participation. Still, when we arrange various business processes and their related process applications along that spectrum of little to intense human involvement, we can draw a reasonable dividing line between these two categories (see Figure 1). The spectrum includes:

- **Straight-through processes at one end.** At one end of the spectrum, processes and applications like order processing or vendor-managed inventory that provide straight-through-processing will be transactional applications. Processes where the human involvement is limited to actions like a purchase or receiving financial results output like a financial management system are also transactional apps. Transactional apps also include applications where human involvement is to deal with exceptions that the system could not handle, because a design goal for these applications is to reduce the number of exceptions that require human involvement.

- **Collaborative activities at the other.** At the other end sit highly collaborative activities like the operations of firefighters at a fire scene, a medical team responding to a disaster, or teachers and school administrators preparing a high school class schedule. Applications to support services delivery or projects would also be collaborative applications.
A gray area in between, where the boundary line can be fuzzy. The gray area is for applications like sales force automation or talent management where people are involved as both initiators and recipients of information on a case-by-case basis. Sales force automation is a transactional application, because the human involvement is almost always one person putting information in (e.g., a salesperson entering the results of a sales call) and one person pulling information out (e.g., the same salesperson looking to see all interactions with a client in the past month). Talent management applications have those aspects as well, but they also involve collaboration between employee and manager to discuss ratings and potential improvements, as well as collaboration between managers to assess top performers and their career paths. We also include as smart process apps other applications that focus on handling cases, especially when the resolution of a case may entail involving more than one person.

This spectrum is also important for understanding the future of smart process apps. The smart process apps offered by the vendors in this evaluation are primarily focused on case activity or service activity: processes that involve a small number of people and generally with relatively structured and predictable parameters that define the work to be done. Designing an application for these mostly tactical activities is straightforward. But it is more complicated to create applications for the less structured, highly collaborative, and strategically important processes of projects or operations, i.e., moving to the right on the spectrum. Yet, improving results will increasingly depend on businesses’ ability to optimize these highly collaborative, human-based projects and operations, not just cases or service delivery. So, our evaluation of smart process app vendors will address the plans and capabilities of these vendors to develop solutions in the future for projects and operations, not just their current ability to provide case-based or service-based smart process apps today.
Figure 1 How We Divide Transactional Process Apps From Smart Process Apps

<table>
<thead>
<tr>
<th>Transactional process apps</th>
<th>Smart process apps</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Level of human involvement</td>
</tr>
<tr>
<td>Straight-through process</td>
<td>Exception-handling process</td>
</tr>
<tr>
<td>Purchasing</td>
<td>Email response management</td>
</tr>
<tr>
<td>Order management</td>
<td></td>
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<tr>
<td>Invoice automation</td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td></td>
</tr>
<tr>
<td>Vendor-managed inventory</td>
<td></td>
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</tbody>
</table>

The Key Attributes Of A Smart Process App

In our inaugural report defining and sizing the smart process app market, we identified five key attributes that these applications would need to have in order to support human-based, collaborative activities (see Figure 2):

1. **Imported or embedded awareness data relevant to the business activity.** Collaborative business activity starts with a set of data that provides the trigger or backdrop or framework for that activity.

2. **Document capture, document output, and document management.** Many collaborative processes still start with incoming paper documents, faxes, emails, or mobile messages. The information in these documents needs to be converted into electronic data that can be easily accessed by team members, using an integrated document capture solution for scanning and indexing incoming paper, managing incoming faxes and electronic messages, and making this information available to workers. Similarly, the outcome of the collaboration will often be some kind of a document, such as a report, a case file, a project deliverable, or a services record. So, smart process apps also need to support document creation and output.²
3. **Embedded analytical tools designed for the business activity.** The people engaged in a collaborative business activity will need analytical tools designed for the task at hand. A general business intelligence (BI) tool that requires them to create the reports or dashboards that they may want will not be sufficient to help these people work smarter.

4. **A collaboration platform for people to create content needed for the activity.** The people in the activity are meant to do things, not just sit there in analysis paralysis. They need to work together to create a deliverable, whether it is a report, a plan, a problem resolution, a recommendation for action, or any other kind of work object. Those people may be employees in an office, but they may equally be employees on the road, contractors or consultants, customers, suppliers, or other partners. They will need to share ideas, submit their own solutions, critique and comment on the contributions of others, and work and rework the deliverable that will define what should be done next.

5. **BPM tools for executing the steps involved in the activity.** Having identified and created through collaboration a solution, a remedy, a call for action, people then need to execute the steps needed to turn plan into action. This is where business process management (BPM) elements of workflow, rules engines, enterprise application integration, process modeling, process monitoring, and dynamic case management come into play.

The crucial factor is that the business process or activity being addressed by an application determines whether or not an application is a smart process app, not whether the app has these listed capabilities. These capabilities are necessary ones for smart process applications because the people at the heart of a smart process need these tools to work more intelligently and effectively. But inclusion of analytics or BPM, for example, does not make an app a smart process app. Transactional applications increasingly have embedded analytics, which are increasingly making decisions about what to do in specific situations automatically and without human intervention. Similarly, business process management suites play a role in making transactional processes run smoothly and expediting the handing of exceptions, as well as connecting transactional apps with each other or with smart process apps (see Figure 3).
**Figure 2** Smart Process Apps Combine Awareness, Analysis, Content, Collaboration, And BPM

*Smart process apps combine two A’s, one B, and two C’s*

- **Awareness** of relevant data and content
- **Capture and output** of documents and forms
- **Analysis** of targeted inputs
- **Collaboration** to create content
- **Business process management** to manage the steps of an activity

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**Figure 3** BPM Suites Underpin And Bridge The Gap Between Transactional And Smart Process Apps

*BPM suites support and connect both kinds of apps, becoming the bridge between these software markets.*
The Smart Process App Vendor Landscape

Because smart process apps are still emerging as a software product category, the vendor landscape is a complex one. There are three general categories of vendors offering smart process apps:

- **BPM/DCM vendors with packaged smart process apps.** Some BPM vendors have not only evolved their BPM and/or dynamic case management (DCM) platforms to support clients that want to build custom smart process apps; they have also created and now sell packaged smart process apps built on their BPM/DCM platform.

- **Packaged application vendors with a smart process app BPM platform.** These vendors have added smart process apps to their historical portfolio of transactional apps, as well as created a smart process app platform consisting of BPM, analytics, collaboration, document capture and distribution, and access to relevant awareness data that allows clients to build their own apps.

- **Packaged application vendors that have focused on smart process apps.** These vendors have offered only packaged applications that are designed for human-based business activities; they have added BPM, analytics, collaboration, and document capture and production capabilities to their products to support these applications but do not provide a platform for clients to build their own apps.

This Forrester Wave evaluation includes vendors in all three categories.

**SMART PROCESS APPLICATION EVALUATION OVERVIEW**

To assess the state of the smart process application market and see how this group of vendors compares with each other, Forrester evaluated the strengths and weaknesses of 12 leading smart process app vendors.

**Our Evaluation Criteria Balance Vendors’ Current Abilities Against Potential**

After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 15 criteria, which we grouped into three high-level buckets.

**Current offering.** We evaluated each vendor’s ability to meet current needs for process applications using quantitative (how many solutions do they currently offer for vertical industries and for cross-industry processes) and qualitative variables, such as the relative strength of its capabilities for the core functional requirements of a smart process app solution. In addition to covering their capabilities in the areas of BPM, content capture, content distribution, collaboration, and analytics, we also assessed their capabilities for supporting mobile users and mobile data and how integrated their platform was.
The scales for the quantitative variables were numeric; the scales for the qualitative variables ranged from better-than-the-others, to good, to needs improvement (see Figure 4):

- **Packaged solutions for vertical markets.** How many smart process apps does the vendor currently offer for vertical industries? For a top score, a vendor needed to offer at the time of the evaluation 50 or more of these solutions.

- **Packaged solutions for cross-industry.** How many smart process apps does the vendor currently offer for cross-industry processes? For a top score, a vendor needed to offer today 15 or more of these solutions, including most of the 20 existing smart process apps that we identified in our earlier report.3

- **BPM software.** How strong are the vendor’s BPM and dynamic case management capabilities? Since we have published Forrester Wave evaluations of these product categories in the past two years, where available we used vendor scores for Current Offering in these evaluations.4 If the vendor had not been included in these evaluations or if there had been changes like an acquisition since the Forrester Wave evaluation, we solicited the opinions of Forrester analysts responsible for these evaluations as to how that vendor’s BPM or DCM capabilities would compare with those in the evaluations based on information that the vendor provided.

- **Collaboration.** How strong are the vendor’s functions for supporting collaboration between multiple people inside and outside the organization? In August 2012, we published a Forrester Wave evaluation of vendors’ cloud strategies of online collaboration, from which we used vendor scores for Current Offering in this evaluation.5 If the vendor had not been included in the original evaluation, we solicited the opinions of appropriate Forrester analysts as to how its collaboration capabilities would compare with those in these evaluations based on information that the vendor provided. Examples of best-in-class functions include support for real-time collaboration while completing a task and support for expert location (i.e., automatic identification of an expert for a particular process or process task).

- **Document capture and management.** How strong are the vendor’s tools for importing physical or electronic documents and similar structured content that will be needed by the people involved in the collaborative activity? We published a Forrester Wave evaluation in August 2012 of vendors’ multichannel capture capabilities, from which we used vendor scores for Current Offering in this evaluation.6 If the vendor had not been included in this evaluation, we solicited the opinions of responsible Forrester analysts as to how its multichannel capture capabilities would compare with those in these Forrester Wave evaluations based on information that the vendor provided.
- **Document output for customer communications.** How strong are the vendor’s tools for document distribution and communication capabilities? We took advantage of a September 2011 Forrester Wave evaluation on document output for customer communications and used vendor scores for Current Offering in this evaluation. If the vendor had not been included in this Forrester Wave evaluation, we solicited the opinions of responsible Forrester analysts as to how its document distribution and communication capabilities would compare with those in these evaluations based on information that the vendor provided.

- **Mobility.** How strong are the vendor’s tools for supporting mobile devices and the deployment of mobile applications on different mobile devices? The top vendors differentiate themselves with the ability to create an app once that can immediately and seamlessly run on a web page or on any mobile device, with automatic reformatting for the content and workflow to the screen size, pixels, and other attributes of each device, or support for mobile authoring to create mobile-specific controls that can be reused across forms and business processes.

- **Advanced analytics.** How strong are the vendor’s tools for task-specific analytics? We took advantage of a June 2012 Forrester Wave evaluation on self-service business intelligence platforms and used vendor scores for Current Offering in this evaluation. If the vendor had not been included in this Wave, we solicited the opinions of responsible Forrester analysts as to how its analytics capabilities would compare with those in the evaluation based on information that the vendor provided.

- **Integrated platform.** Are the smart process apps built on a single integrated platform, or are customers required to implement and maintain multiple products or components? Does the solution enable unified access to smart process apps? Does the platform provide entity modeling to define object model for persistent storage of data and relationships, define application logic, and connect the entities or business objects to processes and business rules?

**Strategy.** In assessing strategy, we primarily looked at the plans and capabilities of the vendor to support more collaborative activities like projects and operations. Because we believe this will be the area with the biggest growth opportunities in the future, how well a vendor is positioned to capture these opportunities will play a defining role in its strategic success in the future (see Figure 5).

- **Planned enhancements.** Above and beyond the vendor's plans to add features and functions to its existing products that tend to be case-focused, we looked for evidence of planned enhancements to support the less structured, larger group activities of projects and operations.

- **Key technology partners.** Many of these highly collaborative project and operation activities will need to be designed for the strategic business needs and priorities of different industries. To be successful, vendors will need to form partnerships with other services or software vendors with deep knowledge of these industries and that will be able to create the right kind of smart
process app for each industry. Moreover, solutions may well start with one company developing a smart process app for its own case, which will turn out to be highly relevant to other industries in the same industry. So, vendors will also need to form technology partners with these customers to license IP back from the customer or to support these customers should they choose to commercialize the product. Accordingly, we looked for evidence that a vendor was starting to form these kinds of sell-side partnerships with other firms, both with tech vendors and non-tech end customers.

- **Cloud computing.** We have made cloud computing one of our three criteria for strategy, because we believe that solutions for complex projects and operations should be SaaS-based to allow all parties, both employees and external partners, to access the same application when and as needed. Vendors who are primarily providing SaaS solutions got top scores because they are best positioned to support these complex project and operational activities. Those that offered primarily single-instance solutions, whether on-premises or hosted, for most applications but with some selected SaaS-only apps received middle scores. Those that offered the products willy-nilly as single-instance on-premises, single-instance hosted, or multitenant SaaS offerings received the lowest score because we think they are underestimating the complexity of maintaining a single code base for all three deployments for applications that should be evolving rapidly to keep up with the fast pace of change in this market.

- **Market presence.** This criterion shows the relative size and scale of the vendor based on its number of clients and the number of channel partners that it has.

**Installed base.** This criterion provides data on each vendor’s installed base of customers for smart process apps and platforms software. The highest score of a 5 goes to vendors with 1,000 or more clients.

**Key channel partners.** This criterion provides data on each vendor’s channel partners that support the sale and implementation of its smart process apps and platforms software. The highest score of a 5 goes to vendors with 50 or more partners, of which at least 20 have done three or more implementations in the past 18 months.
**Figure 4** Smart Process Apps Current Offering Criteria Rate Strengths For Case-Based Processes

<table>
<thead>
<tr>
<th></th>
<th>Score of 1</th>
<th>Score of 3</th>
<th>Score of 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing vertical industry apps</td>
<td>1 to 4 apps</td>
<td>5 to 50 apps</td>
<td>More than 50 apps</td>
</tr>
<tr>
<td>Existing horizontal process apps</td>
<td>1 to 4 apps</td>
<td>5 to 50 apps</td>
<td>More than 15 apps</td>
</tr>
<tr>
<td>Business process management</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
<tr>
<td>Document capture and management</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
<tr>
<td>Document and content output</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
<tr>
<td>Mobility</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
<tr>
<td>Advanced analytics</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
<tr>
<td>Integrated platform</td>
<td>Needs work</td>
<td>Good</td>
<td>Better</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.

**Figure 5** Smart Process Apps Strategy Criteria Rate Vendor Potential For Projects And Operations

<table>
<thead>
<tr>
<th></th>
<th>Score of 1</th>
<th>Score of 3</th>
<th>Score of 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud computing</td>
<td>Any model</td>
<td>On-premises or hosted single-instance</td>
<td>All/selective SaaS multitenant</td>
</tr>
<tr>
<td>Future enhancements</td>
<td>Case-focused</td>
<td>Case-, service-, and project-focused</td>
<td>Collaboration-focused</td>
</tr>
<tr>
<td>Technology partners</td>
<td>Systems integrators</td>
<td>SIs and some ISVs</td>
<td>Customers, ISVs</td>
</tr>
</tbody>
</table>

Source: Forrester Research, Inc.
Why We Included The Vendors We Did

Forrester included 12 vendors in the assessment: Appian, Cordys, EMC, IBM, JDA, Kana, Kofax, Lexmark, OpenText, Pegasystems, salesforce.com, and SAP. Each of these vendors met our criteria for inclusion (see Figure 6):

- **Existing smart process applications as of October 1, 2012.** These vendors have at least three vertical or horizontal solutions (e.g., repeatable, packaged applications) that adhere to the design principles of “build for change and design for people” and are similar to the applications identified in our initial report. These applications may be offered by the vendor or its partners.

- **All five elements of smart process applications.** These core elements are awareness of relevant data and content, capture and output of document and forms, analysis of targeted inputs, collaboration to create content, and business process management to manage the steps of an activity. These elements can be core products or obtained through partners.

- **Significant proprietary capabilities.** The vendors we include have at least some of their own technology (as opposed to a partner’s) in key areas such as BPM, DCM, collaboration, and analytics.

- **Revenues of $50 million or more from existing smart process apps and/or BPM.** To make our assessments manageable, we set a revenue threshold for vendor revenues from either smart process apps or BPM/DCM platform revenues.

- **An explicit and articulated focus on creating smart process applications.** Smart process applications are a new concept in the market — and one that not all vendors have embraced. The vendors we included in our evaluation have all found the smart process app concept to be a compelling one and welcomed the opportunity to work with Forrester to help define and shape this concept.
### Vendor selection criteria

**Existing smart process applications as of October 1, 2012.** These vendors have at least three vertical or horizontal solutions (e.g., repeatable, packaged applications) that adhere to the design principles of “build for change and design for people” and are similar to the applications identified in our initial report. These applications may be offered by the vendor or its partners.

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### Other Vendors In Or Just Outside The Smart Process Apps Market

We consider the vendors we included in this Forrester Wave evaluation to be initial participants in the market. However, there are three categories of vendors that are poised on the edge of the smart process app market and will likely become players over the next 12 to 18 months:
- **Infor, Microsoft, Oracle, and other app vendors have yet to focus on smart process apps.** These vendors offer one or more horizontal or cross-industry applications that fall into the 20 existing smart process apps that we have identified. Some of them like Oracle also have a BPM platform. But to date they have shown no interest in defining these as smart process apps. We expect that these vendors will focus on this market as they come to realize how large and fast-growing it is. But they will be playing catch up with the vendors in this evaluation that are already pursuing the opportunities in this market.

- **Fujitsu, K2, Progress Software, Software AG, and Tibco Software don’t yet have apps.** These BPM and/or DCM vendors have platforms that can support the creation of custom smart process apps by clients, but they have yet to create and offer more than a handful of their own packaged smart process apps on these platforms. While many will stick to their historic strengths as platform vendors, others will follow the lead of vendors like Appian, Cordys, and Pegasystems and add a growing mix of their own packaged apps to their product portfolio.

- **Intuit Quickbase, CRIF, BabbleWare, Bosch Software, Rage Frameworks are new to market.** These vendors either provide platforms for smart process apps (Intuit, BabbleWare, and Rage Frameworks) or offer vertical industry smart process apps (CRIF and Bosch Software Innovations). They were too small or too new to the market to be included in this evaluation, but they will become more important in the future. A growing number of firms are turning to Intuit’s Quickbase, which is already becoming a platform for employees to build collaborative applications for project tasks.

### SMART PROCESS APPLICATION KEY VENDORS

The evaluation uncovered a market in which (see Figure 7):

- **Seven vendors are on the edge of leadership.** While we identified several vendors who have very strong solutions for case-based processes and activities, we found very few examples of solutions for more complex, multiperson activities like projects and operations or campaigns. It is telling, we think, that no vendor could point to examples of how it had used its own products or platform to make its own services arm and consultants more effective in scoping, sizing, or executing its services projects. Instead, we found vendors that are very strong in their current offering for case-based processes but have some strategic challenges, other vendors that are almost as strong in their current case-focused solutions but are starting to pivot toward addressing project and operations processes, and other vendors that are weaker in their support for case-based processes but have strong strategic assets for addressing the more complex project and operations activities.
EMC and IBM have strong current offerings but strategy challenges. These large vendors have numerous clients for their cross-industry or their vertical-specific smart process apps; good or very good BPM platforms; and strengths in document capture and management and output, mobility, advanced analytics, and integration. Both are getting ready for the market's evolution toward project and operational activities — EMC with an emphasis on project collaboration; and IBM on advanced analytics. However, their size and current product strength may present challenges for them from a strategic perspective. While their product road maps do contain plans for addressing project- and operations-based collaboration in the future, their near-term plans focus primarily on enhancing case-based collaboration. Moreover, in their cloud strategies, they straddle the line between on-premises licensed software (which is appropriate for case-based collaborative activities) and SaaS (best for project and operations activities).

Appian, Kofax, OpenText, and Pegasystems balance good current offerings and strategy. Appian, Kofax, OpenText, and Pegasystems are smaller than the first two, so they don't score as high as the others on these criteria due to having fewer vertical or cross-industry applications. Still, in most of the qualitative current-offering criteria, they score as well as the larger vendors. Moreover, their smaller size also makes them more nimble, especially in their ability to pivot toward SaaS-based offerings and to form partnerships with other software vendors and customers. Kofax is very strong in multichannel document capture and BPM/dynamic case management and is starting to embrace SaaS, but it is mostly focused on case-based collaboration. OpenText currently offers two separate platforms for different types of smart process apps, both of which integrate its multichannel capture, content management, and multichannel communication offerings.

Salesforce.com is average in current offerings but has strategic strengths. Salesforce would probably not be the first choice of a company looking for a case-focused smart process app. But, strategically, it is well positioned to address project and operational activities thanks to products like Chatter Mobile, Salesforce Touch, and Chatterbox, which are pioneering new models for human collaboration in projects and operations; its Force.com platform, which enables other software vendors to create new apps; and its full commitment to SaaS.

Cordys, Kana, Lexmark, and SAP are just behind the others. Each of these vendors has some unique strengths, but each is average in several areas or may face some strategic challenges. Cordys, for example, has a well-integrated platform that is fully SaaS-enabled, has good partnerships with other software vendors and customers, and is competitive in BPM, collaboration, mobility, and analytics. It is weak, however, in document capture or output and is just starting to focus on project collaboration. Kana is a Strong Performer for customer-facing smart process apps with competitive offerings in BPM, collaboration, mobility, and advanced analytics, but it has a small portfolio of products, is still straddling single-instance versus SaaS offerings, and has not yet started to focus on projects or operations. Lexmark has a good portfolio of existing solutions, strengths in BPM and competitive functions elsewhere, but is not
yet differentiated in its strategy for evolving beyond cases. SAP has a broad portfolio of cross-industry apps, an emerging set of vertical industry apps, and very good support for mobility and advanced analytics, but it has weaknesses in document output and an average strategy for addressing opportunities in projects and operations.

- JDA lacks the current functions of other vendors but has some very good existing apps. JDA’s strengths lie in its sizable and growing portfolio of supply chain management and retail management applications that support collaborative activities like demand management, price and promotions management, supply chain planning, and sales and operations management. However, it lacks the document capture or document output capabilities of most of the other vendors, and its smart process apps are generally average.

This evaluation of the smart process application market is intended to be a starting point only. We encourage clients to view the detailed vendor evaluations and adapt criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

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**Figure 7** Forrester Wave™: Smart Process Applications, Q2 ’13

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Source: Forrester Research, Inc.
Figure 7 Forrester Wave™: Smart Process Applications, Q2 ‘13 (Cont.)

<table>
<thead>
<tr>
<th>CURRENT OFFERING</th>
<th>Forrester’s Weighting</th>
<th>Appian</th>
<th>Cordys</th>
<th>EMC</th>
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<td>Packaged solutions for vertical markets</td>
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<td>5.00</td>
<td>5.00</td>
<td>3.00</td>
<td>1.00</td>
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<td>Key channel partners</td>
<td>30%</td>
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<td>5.00</td>
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</table>

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

Source: Forrester Research, Inc.

VENDOR PROFILES

Fringe Leaders Strong In Current Offering Are EMC AND IBM

- EMC leads in most functional categories of current offering. We gave EMC top scores for BPM, document capture and document output, analytics, mobility, and integrated platform but, along with most other vendors, an average score for collaboration. On its own or through partners, it offers a wide range of vertical smart process apps for its target industries of financial services, insurance, healthcare, government, energy, and life sciences. However, its portfolio of
cross-industry smart process apps puts it in the middle of the pack. EMC’s product road map will improve its collaboration capabilities, and it is pushing into project-based collaboration, especially in financial services. Its cloud strategy still straddles the existing world of on-premises apps and the future of SaaS in collaboration, and it still has only two or three clients building and commercializing apps on its platform.

- **IBM has one of the largest portfolios of both vertical and cross-industry smart process apps.** Either on its own or through partners, IBM covers most of the bases when it comes to existing smart process apps for either vertical or cross-industry activities. IBM is also strong in most of the functional areas, including BPM/DCM, mobility, collaboration, and advanced analytics, with the exception of document output. It has built its smart process apps through acquisition; although they are integrated through a shared service-oriented architecture (SOA) platform, they are not as tightly integrated as the suites of competitors that have been built from the ground up on the same platform. It is one of the few vendors with products that support operations, in its case, those for governments and law enforcement. It has been working with non-vendor clients as well as with other software vendors to build and commercialize their own smart process apps on its platform. But its cloud strategy hedges between on-premises for most apps with SaaS for a minority.

**Fringe Leaders, Stronger Strategy: Appian, Kofax, OpenText, Pegasystems, Salesforce**

- **Appian scores in BPM, collaboration, mobility, and SaaS.** Appian has been one of the top vendors in dynamic case management and BPM, and it also scores well in terms of collaboration and mobility. Its fully integrated platform that is SaaS-based is a strategic strength. It is average in the number of packaged apps it has for vertical industries and for cross-industry processes. Document capture, document output, and analytics are average, as is its road map for planned enhancements and partnerships with other software vendors and clients to create commercial software for industry-specific collaborative activities. Appian is a good choice for clients in financial services, public services, healthcare, insurance, retail, and pharmaceuticals who want solutions for improving case and service activities and are starting to look at improving project activities.

- **Kofax shines in document capture, BPM, and SaaS strategy.** Kofax is the top vendor in multichannel capture according to the Forrester Wave evaluation of this category and also offers a leading BPM/DCM platform. It has strong mobile capture capabilities (which can be used for transactional as well as smart process apps) but is average on other aspects of mobility such as the ability to create a mobile app once that can then run directly on different smartphones or tablets. It is also average in document output, analytics, and collaboration. Its solutions are primarily offered on a SaaS multitenant basis, though they can also be deployed on an on-premises or hosted single-instance basis. Its product road map is focused on strengthening its
case-focused solutions. Kofax is a good choice for clients whose human-based processes involve a high degree of capture of third-party content in order to resolve a business challenge or operational issue.

- **OpenText emphasizes the configurability of its smart process app platform and apps.**
  OpenText has made smart process apps a major strategic focus. It used acquisitions of DCM and BPM vendors like Global 360 and Metastorm as complements to its existing strengths in multichannel capture, content management, and document output, though for now these acquisitions have left it with two different platforms for different types of smart process apps. It has a large portfolio of cross-industry smart process apps and an average size portfolio of vertical apps. It has been making investments to improve its collaboration capabilities, though its mobility and analytics still have room for improvement. It is further developing its smart process app platform to allow smart process apps designers to choose from building blocks of collaboration, case and process management, systems integration, content management, embedded analytics, task management, and other core functionality and configure the right app for their needs. Its cloud strategy continues to emphasize hybrid on-premises or SaaS options, and its partner strategy for attracting software vendors and end customers to build and commercialize apps on its platform is on par with other vendors.

- **Pegasystems excels in BPM, document output, mobility, analytics, and SaaS strategy.**
Pegasystems has consistently scored at or near the top for strength of current offerings in BPM and dynamic case management. It has created a strong and innovative analytics offering; additionally, it has developed a deployment model that is primarily SaaS-based but supports what Forrester has called “collaborative tenancy,” that is, sharing single data objects with multiple tenants based on an auditable trust relationship.
  Its document capture and document output capabilities are average, though Pegasystems is strengthening these. It has a sizable number of packaged solutions, especially in the sell-side space, but needs to broaden its focus to support back-office and internal collaborative process activities. Pegasystems is a good choice for clients in financial services, telecommunications, insurance, healthcare, and life sciences who are ready for solutions that address not only their case needs, but also their project and operational activities.

- **Salesforce leads in SaaS strategy, collaboration, mobility, and enhancement plans.**
  Salesforce can no longer be pegged as just a CRM vendor. While it remains focused on sell-side business activities, it is pushing into a broader range of front-office activities that cover marketing and services as well as sales. It lacks the strong BPM capabilities of other vendors, and its document capture and document output functions are subpar compared with other vendors. But it has built top-tier collaboration and mobility functions and is doing experimental work in applying its capabilities to sales projects, marketing projects, marketing campaigns, and services operations. In addition to being the largest SaaS vendor, it has, like Pegasystems, been pushing into new models of multitenancy that involve sharing data objects, documents, and process
steps among multiple parties. And its Force.com PaaS environment makes it easy for a client to create and deploy a custom or configured app built on its smart process app platform. Any client that is looking to improve its project activities should include salesforce.com as a potential solution provider.

**Strong Performers Are Cordys, Kana, Lexmark, And SAP**

- **Cordys uses its BPM SaaS platform to advantage.** Cordys was one of the early BPM vendors to emphasize SaaS, and it built its platform as a SaaS-only version at a time when most BPM vendors were selling on-premises or single-instance hosting versions. Its BPM/DCM capabilities are average as a result, and it is weak in document capture and document functions. However, the decision to emphasize SaaS gives Cordys a strategic advantage as the market for multiparty project and operations support grows. Cordys has also been a leader in getting end customers to build commercializable products on its platforms. Cordys is a good choice for clients who want to build and sell their own smart process apps.

- **Kana covers customer-facing smart process apps.** Kana began as a customer service and email management vendor, and its strengths continue to be in support for customer sales, marketing, and service activities. Acquisitions like Lagan (a government CRM vendor), Sword Ciboodle (a BPM and DCM vendor for customer service), and Overtone (a social media monitoring software vendor) have moved it squarely into the smart process app market. Its portfolio of smart process apps is still relatively small and concentrated on service and related activities. Analytics is a strength of Kana, but its other functions are average, which its planned enhancements will improve. Some Kana apps are offered on as multitenancy products, but most are offered as single-instance products to be deployed on-premises or on a hosted basis. Kana should be considered by clients who are looking for packaged smart process app solutions for human-based activities in customer service and related sales and marketing tasks.

- **Lexmark has assembled a competitive smart process app platform.** Through a series of acquisitions, Lexmark has transitioned from its roots as a printer vendor into a leading player in the BPM/DCM software market. Building on the resulting top-tier BPM/DCM platform, it now offers a good number of both vertical industry and cross-industry smart process apps. Its other functions of collaboration, document capture, document output, mobility, and analytics are average, and its product road map focuses on improving these to strengthen its ability to handle case and service activities. Lexmark is a good choice for clients in healthcare, banking, retail, government, education, and insurance who want a smart process app platform that will allow them to improve their case-based activities.

- **SAP has the existing apps but needs to strengthen its smart process app platform.** SAP is one of the largest application vendors in the world, so it is no surprise that it offers almost all of the cross-industry processes that we have identified and a good number of vertical industry apps.
With the addition of Hana, it has leading analytical capabilities to go along with very strong mobility offerings. However, its other functions of BPM (which Forrester has not formally evaluated), collaboration, and document capture are average, and it is weak in document output (it relies on partners like OpenText). Thanks to acquisitions of Ariba and SuccessFactors and a few home-built multitenant applications, it has put a foot into the world of SaaS, but most of its applications are still offered only as single-instance hosted or on-premises applications. Its product road map understandably focuses on strengthening its weak or average functions for supporting case-based processes, but it has not yet focused on addressing the more complex projects and operations processes. SAP’s smart process app capabilities should certainly be considered by any client that is already using SAP transactional applications and by non-SAP clients for its many existing smart process apps.

**Contenders**

- **JDA Software leads in smart process apps for the supply chain.** JDA has become a leading vendor of supply chain management and retail merchandising and pricing software. Because many of these business activities involve a high degree of human involvement and collaboration, it has become almost by default a smart process app vendor. Its historic focus has been on providing fully packaged applications, and it is just starting to build a platform that allows clients to create their own smart process apps. As a result, its BPM, collaboration, mobility, and analytics functions are average, and it is weak in document capture or output. Because its clients have traditionally wanted to control and customize their supply chain or retail apps, it offers its products primarily as single-instance on-premises or hosted apps. It is just starting to explore SaaS products. Still, for clients who are looking for smart process apps for their supply chain or retail merchandising and pricing activities, JDA is a Contender.

**SUPPLEMENTAL MATERIAL**

**Online Resource**

The online version of Figure 7 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 four data sources to assess the strengths and weaknesses of each vendor:

- **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.

- **Existing Forrester Wave evaluation.** Because this Wave evaluated vendor capabilities as opposed to product feature and functions, we used as inputs the Current Offering ratings from Forrester Wave evaluations for vendor products that aligned with the capabilities that we were evaluating. We also involved the Forrester analysts responsible for these Forrester Wave evaluations to review our evaluations to make sure they reflected current vendor capabilities.

- **Customer reference surveys.** To validate product and vendor qualifications, Forrester also conducted online surveys with two or three 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/or 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 We published our report defining and sizing the smart process application market in August 2012. See the August 8, 2012, “Smart Process Applications Fill A Big Business Gap” report.


3 The 22 existing smart process apps that we identified in our earlier report were the following: contract life-cycle management, services procurement, spend analysis, supplier risk and performance management, revenue and pricing management, field service management, enterprise marketing management, customer service and support management, social media platforms, governance, risk and compliance, recruitment management, employee performance management, learning management systems, advanced inventory optimization, advanced supply chain planning and scheduling, demand forecasting and planning, sales and operations planning, supply chain event management, supply chain intelligence, closed loop life-cycle management, budgeting and planning, and project portfolio management.

4 Forrester published a Forrester Wave evaluation on BPM. See the August 26, 2010, “The Forrester Wave™: Business Process Management Suites, Q3 2010” report. It also published a more recent evaluation on dynamic case management. See the January 31, 2011, “The Forrester Wave™: Dynamic Case Management, Q1 2011” report. Because of the age of these evaluations, we consulted closely with the responsible analysts to assess current capabilities compared with those at the time of the original assessment to make sure assessments were up to date.


6 For the most recently published evaluation on multichannel capture, see the August 12, 2012, “The Forrester Wave™: Multichannel Capture, Q3 2012” report.


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« CAROL ITO, client persona representing CIOs

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