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The Forrester Wave™: Integration-Centric Business Process Management Suites, Q4 2008

by Ken Vollmer
for Enterprise Architecture Professionals



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Software AG, IBM, And TIBCO Software Lead

by **Ken Vollmer**

with Gene Leganza, Katie Smillie, and Mimi An

EXECUTIVE SUMMARY

Forrester evaluated leading integration-centric business process management suite (IC-BPMS) vendors across 109 criteria and found that Software AG, IBM, TIBCO Software, Vitria Technology, Oracle, SAP, and Cordys Software achieved leadership status based on their combined strength across the four major areas of evaluation: enterprise application integration (EAI), business-to-business interactions (B2B), business process management (BPM), and service-oriented architecture (SOA). Microsoft, Sterling Commerce, and Sun Microsystems scored as Strong Performers in this category, but each has some limitations related to BPM functionality. Enterprise architects should use the information in this report as the foundation for a customized review of this product category designed to meet their specific enterprise needs.

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NOTES & RESOURCES

Forrester interviewed 10 of the leading vendors of IC-BPMS products including Cordys Software, IBM, Microsoft, Oracle, SAP, Software AG, Sterling Commerce, Sun Microsystems, TIBCO Software, and Vitria Technology. We also interviewed 20 user companies that are actively using these tools.

Related Research Documents

["Using BPM To Improve Operational Efficiency"](#)

July 7, 2008

["Using BPM To Support Innovation"](#)

July 7, 2008

["Use A Comprehensive Set Of Criteria When Selecting An IC-BPMS Tool"](#)

June 25, 2008

IC-BPMS TOOLS ARE GAME-CHANGING TECHNOLOGY

The IC-BPMS software category evolved out of the EAI space of the mid-to-late 1990s. Consequently, the products in this space have a proven track record of supporting complex interactions between internal applications and the business users who rely on them. During the last several years, vendors have added additional capabilities for supporting a wide range of B2B interactions, along with sophisticated BPM, SOA, and application development features.¹

As a result, today's IC-BPMS products have captured a central role as the foundational middleware component in many leading enterprises, and firms are using them with increasing frequency to deliver game-changing solutions. Forrester has recently published a separate document that provides many details related to the IC-BPMS market and the selection criteria that we recommend enterprise architects use when considering products in this software category.²

It is becoming increasingly clear that the availability of these types of tools is enabling enterprises to simultaneously improve operational efficiency and support business innovation.³ For example, Florida Community College at Jacksonville in Jacksonville, Fla., implemented the webMethods BPMS from Software AG and was able to revamp its development organization with a new SOA-based environment that supports end-user participation in the design of new systems, provides integration and process improvement capabilities, and reduces overall development time by over 50%.

The IC-BPMS Value Proposition

The IC-BPMS category of software is one of the more comprehensive collections of middleware tools available on the market today. Products in this group provide integrated features covering:

- **BPM.** IC-BPMS tools provide support for BPM by using business process modeling notation (BPMN) business process execution language (BPEL), and XML-based process description language (XPDL) that allow for graphical modeling of business processes that the software then interprets as executable code. Other BPM features provide support for process orchestration, execution, monitoring, and optimization efforts.
- **B2B, EAI, and SOA.** B2B capabilities can vary considerably by vendor, but IC-BPMSes generally provide features that support trading partner administration, onboarding, and trading partner performance reporting. And since most of the vendors in the group evaluated in this Forrester Wave™ have a strong background in providing EAI solutions, the features in the EAI area are quite extensive and include a core integration server and support for application and technology adapters. These middleware solutions also provide comprehensive support for SOA; they have embedded enterprise service bus (ESB) functionality as well as an SOA-based metadata repository, and they have all adopted of a wide range of Web services standards.⁴

- **Application development.** Finally, the capability of IC-BPMS tools to support new application development is one of the strongest features of this category of software products; most IC-BPMS vendors provide a comprehensive development framework for supporting the creation of composite applications and dynamic business applications.⁵ These frameworks include model-driven-development-capable integrated development environments (IDEs), embedded SOA support, and rules engines. Some of the Leaders provide fully functional Web-based development environments as well.

Key Trends Will Drive Evolution Of The IC-BPMS Market

The IC-BPMS market has been a volatile arena for several years, with market forces driving:

- **IC-BPMS vendor consolidation.** Significant vendor consolidation has taken place in this market during the past 18 months. The recent Oracle acquisition of BEA Systems affects much more than the IC-BPMS space, but it will have a significant impact on that market nonetheless, with the eventual outcome being the loss of one major vendor in this product category.⁶ Software AG's acquisition of webMethods was more focused, as the acquired vendor provided only IC-BPMS products. As a limited number of candidates for consolidation remain, the potential for additional IC-BPMS vendor consolidation is somewhat limited compared with past potential.
- **The chase for differentiation.** Just as the early EAI vendors aggressively pursued new product capabilities that led to the creation of the IC-BPMS category, today's vendors will continue to search for new capabilities that will provide them with product differentiation. That being the case, we expect established IC-BPMS providers to initiate a significant level of acquisition of specialized firms over the next couple of years. Most of the emerging new features in the IC-BPMS market will relate to improved BPM features such as process simulation, automated process discovery, more sophisticated support for event management related to business event management (BEM) and complex event processing (CEP), and tighter integration of business rules capability.
- **Widespread adoption.** BPM support is one of the key deliverables of IC-BPMS products, and a recent Forrester survey revealed that BPM projects have already become mainstream inside the majority of enterprises.⁷ This same survey also found that most of the enterprises were in the early stages of their implementation efforts, but over 80% of the IT architects surveyed felt that the efforts had met or exceeded their expectations. This widespread adoption and its early positive results will lead to strong product growth going forward as enterprises expand their internal usage of IC-BPMS solutions and will also lead to vendors increasing efforts to enhance their existing product capabilities.

IC-BPMS REQUIREMENTS OVERVIEW

To assess the state of the IC-BPMS market and to see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of the top IC-BPMS providers.

We Focused Evaluation Criteria On BPM, B2B, EAI, SOA, And Application Development

After examining the results of past research, vendor and expert interviews, requests-for-proposals, and user-needs assessments, we developed a comprehensive set of evaluation criteria to determine the relative positions of leading IC-BPMS solutions. We evaluated vendors against 106 criteria, which we grouped into three high-level buckets:

- **Current offering.** To assess product strength, we evaluated four principal categories of capabilities. The first area was integration functionality that focuses on overall solution architecture, application frameworks, security management, transformation, and support for Web 2.0. In the area of B2B, we evaluated vendor capabilities in the areas of data exchange support and trading partner management. We evaluated BPM features including process management, process modeling, process monitoring, and support for human-centric features. And finally, we evaluated SOA features including support for ESB features, a metadata management repository, and support for a wide range of Web services.
- **Strategy.** To judge the future direction of evaluated offerings, we compared each vendor's product strategy including the breadth of its product offerings, the availability and extent of the customer training it offers, the completeness of its product road map, the extent of its vertical industry solutions, and the availability and extent of its online community support. We captured solution cost information (and presented this in the Wave model), though we do not score this information due to the variable nature of pricing situations. We also evaluated information on adapter licensing models and software licensing flexibility. The extent of strategic alliances was another focal point, with consideration given to system integration partnerships, application partnerships, and strength of reseller channels. Finally, we gave heavy consideration to customer references.
- **Market presence.** To gauge market presence, we combined information about each vendor's installed base and new customers as well as and the size and global footprint of each vendor's sales and support organizations.

We Evaluated Vendors That Offer Comprehensive IC-BPMS Solutions

Forrester included 10 vendors in its assessment: Cordys Software, IBM, Microsoft, Oracle, SAP, Software AG, Sterling Commerce, Sun Microsystems, TIBCO Software, and Vitria Technology. BEA Systems was also initially included but had to be dropped, as Oracle refused to support the evaluation of the BEA product line as a part of this process. Each of these 10 vendors (see Figure 1):

- **Offers an IC-BPMS product.** Each vendor provides either a single comprehensive product or a suite of integrated tools that provides support for EAI, BPM, B2B, SOA, and applications development. The individual capabilities in these areas can vary significantly between vendors.
- **Provides category leadership.** Each of these providers offers leading edge capability in one or more of the focused evaluation areas.
- **Has a long-standing presence in the category.** Most of these vendors have been leading providers in this space for several years. In fact, all of them were included in the previous product evaluation of this space, published in December 2006.

Our evaluation methodology depends in part on input from the vendors, including product demonstrations, questionnaires, and customer references. Oracle chose not to provide data for the BEA WebLogic Integration (WLI) product; therefore, we evaluated this product's capabilities based on the results of prior evaluations, subsequent briefings by BEA management, and ongoing discussions with many BEA WebLogic Integration customers.

Figure 1 Evaluated Vendors: Product Information And Selection Criteria

Vendor	Product evaluated	Version release date range
Cordys Software	Cordys BPM v4.2	January 2008
IBM	IBM BPM Product Portfolio v 6.1: WebSphere Business Modeler Publishing edition V6.1, WebSphere Process Server V6.1, WebSphere Business Services Fabric V6.1, WebSphere Business Monitor V6.1, WebSphere Service Registry and Repository V6.1, WebSphere Adapters V6.1	December 2007
Microsoft	BizTalk Server 2006 R2, Office SharePoint Server, Windows Server 2003, Visual Studio 2005, SQL Server 2005, System Center, Office Suite, Project Astoria	January 2006 - September 2007
Oracle	Oracle SOA Suite and Oracle BPA Suite	August 2006 - September 2007
SAP	SAP NetWeaver v7.1 platform: SAP NetWeaver Process Integration, SAP NetWeaver Composition Environment , SAP NetWeaver Business Process Management, SAP NetWeaver Business Rules Management, and SAP NetWeaver MaterData Management	November 2007 - December 2007
Software AG	webMethods BPMS v7.1 including the enterprise service bus (ESB), which includes CentraSite	March 2008
Sterling Commerce	Gentran Integration Suite v4.3, Sterling Control Center v4.2, Sterling Secure Proxy v3.0, various Connect:Direct servers, and Sterling Collaboration Network.	October 2007 - February 2008
Sun Microsystems	Sun Java Composite Application Platform Suite (CAPS): Sun eInsight BPM v5.1.3, Sun eGate Integrator v5.1.3, Sun Adapters v5.1.3, Sun eView Studio v5.1.3	May 2007
TIBCO Software	ActiveMatrix Suite: ActiveMatrix Service Bus, ActiveMatrix Service Grid, ActiveMatrix Business Studio, ActiveMatrix BusinessWorks (BW), Service Performance Manager, Policy Manager and Registry	November 2007 - March 2008
Vitria Technology	Vitria M3O Suite v2.0: M3O BPM, M3O Exception Manager, M3O Operations Book (BAM), and M3O Enterprise Service Bus, along with Vitria B2Bi Server and Vitria SmartGateway	March 2008

Vendor selection criteria

The product meets Forrester's definition of an IC-BPMS product and as such it represents one of the most complete integration solutions available today and is capable of handling complex integration and activity orchestration between people, applications, back-end systems, and external business partners.

The vendor has been determined to be one of the leading providers of IC-BPMS solutions: It has significant market share in this sector or has gained leading edge mindshare via the capabilities of its products.

The product version has been released and is generally available prior to May 1, 2008.

Source: Forrester Research, Inc.

DIVERSE FUNCTIONALITY IS AT THE HEART OF ALL IC-BPMS PRODUCTS

This evaluation reviewed a market in which (see Figure 2):

- **Software AG, IBM, TIBCO, Vitria, Oracle, SAP, and Cordys lead.** These vendors provide comprehensive solutions that are strong in all indicated areas of IC-BPMS functionality.
- **Microsoft, Sterling Commerce, and Sun Microsystems have competitive solutions.** While these vendors offer strong suite capability overall, they have limitations in the area of BPM components.
- **Oracle's BEA WebLogic Integration has solid functionality but an unclear path forward.** WebLogic Integration is a very capable product but has a clouded future due to the stated product direction that Oracle provided.

This evaluation of the IC-BPMS market is intended to be a starting point only. Readers are encouraged to view detailed product evaluations and adapt the criteria weightings to fit their individual needs through the Forrester Wave™ Excel-based vendor comparison tool.

Figure 2 Forrester Wave™: Integration-Centric Business Process Management Suites, Q4 '08

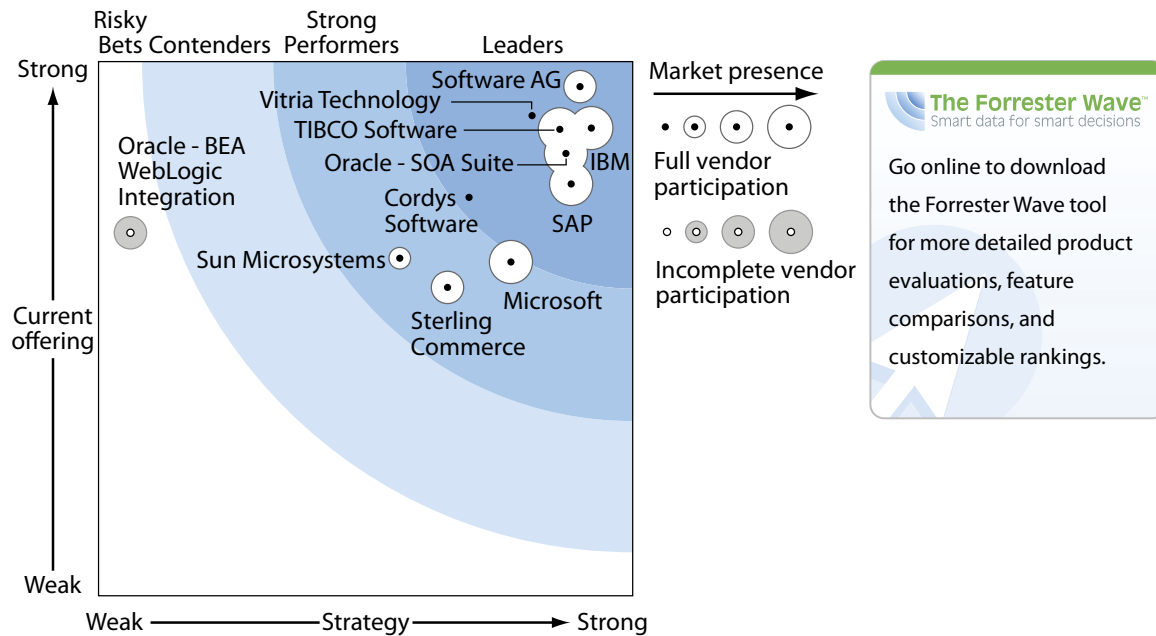


Figure 2 Forrester Wave™: Integration-Centric Business Process Management Suites, Q4 '08 (Cont.)

	Forrester's Weighting	Cardys Software	IBM	Microsoft	Oracle - SOA Suite	SAP	Software AG	Sterling Commerce	Sun Microsystems	TIBCO Software	Vitria Technology
CURRENT OFFERING	50%	3.72	4.36	3.15	4.13	3.85	4.74	2.88	3.14	4.36	4.49
Integration	40%	4.18	4.21	3.70	4.03	3.73	4.72	3.71	3.20	4.21	4.38
Business-to-business (B2B)	10%	3.40	4.60	3.52	4.60	3.00	4.36	4.60	2.88	4.00	5.00
Business process management (BPM)	30%	3.42	4.04	2.67	4.48	3.53	4.71	1.93	2.73	4.30	4.13
Service-oriented architecture (SOA)	20%	3.42	5.00	2.60	3.56	5.00	5.00	1.80	3.80	4.94	5.00
STRATEGY	50%	3.46	4.60	3.84	4.36	4.42	4.50	3.28	2.82	4.32	4.04
Product strategy	30%	3.80	5.00	3.80	4.20	4.80	4.40	3.00	2.80	4.40	3.80
Solution cost	20%	2.00	3.00	4.00	3.00	3.00	4.00	3.00	4.00	4.00	4.00
Strategic alliances	20%	3.60	5.00	5.00	5.00	4.40	4.40	4.40	2.90	5.00	3.00
Customer references	30%	4.00	5.00	3.00	5.00	5.00	5.00	3.00	2.00	4.00	5.00
MARKET PRESENCE	0%	0.48	4.65	5.00	4.65	4.65	3.48	3.59	2.78	4.17	0.42
Installed base	35%	0.00	4.00	5.00	4.00	4.00	3.00	2.00	3.00	4.00	0.00
New customers	35%	0.00	5.00	5.00	5.00	5.00	3.00	5.00	1.00	5.00	0.00
Delivery footprint	30%	1.60	5.00	5.00	5.00	5.00	4.60	3.80	4.60	3.40	1.40

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

Source: Forrester Research, Inc.

VENDOR PROFILES

The Leaders: Comprehensive Functionality For A Wide Range Of Projects

- **Software AG.** Software AG acquired webMethods in 2007 and has since augmented webMethod's original offering through the availability of the powerful CentraSite repository product (which Software AG and Fujitsu developed jointly). Software AG received high scores across the board and provided excellent customer references, which have been corroborated through numerous Forrester discussions with webMethods users over the past two years. Software AG was also ranked as a leader in the most recent human-centric BPM product evaluation.
- **IBM.** IBM retained a leadership position in this category based on the comprehensive nature of its BPM product portfolio. The major products in its portfolio are WebSphere Dynamic Process Edition (which includes WebSphere Business Modeler, WebSphere Business Services

Fabric, WebSphere Process Server, and WebSphere Business Monitor) and WebSphere Service Registry and Repository. Over the years, IBM has made several key acquisitions to round out its BPM capabilities — for example, its acquisitions of Webify and AptSoft — in an effort to retain a leadership position in the key software category.

- **TIBCO Software.** TIBCO is another repeat Leader in this category with its ActiveMatrix product suite. In particular, the ActiveMatrix BusinessWorks is a comprehensive and widely used IC-BPMS product. It is also interesting to note that in our evaluation of human-centric BPM products, the TIBCO iProcess product was ranked among the Leaders for human-centric BPM product functionality.⁸
- **Vitria Technology.** This vendor was one of the early mindshare leaders in the IC-BPMS space in the 2003-to-2005 timeframe but suffered setbacks after the dot-com bubble crash. However, Vitria has returned with a powerful IC-BPMS offering that provides a unique combination of EAI, BPM, and SOA features built on top of a flexible Web 2.0 framework.
- **Oracle.** Oracle is another repeat in the Leader category due to the comprehensive capabilities of its SOA Suite product. Through the acquisition of BEA, Oracle inherited some key products such as the enterprise service bus and repository. However, these products were not in the Oracle product lineup as of the May 1, 2008, deadline for this evaluation.
- **SAP.** NetWeaver has moved into the leadership ranks for the first time in this evaluation based on several key enhancements that SAP made to NetWeaver's SOA capabilities. SAP also received enhanced strategy scores due to its expanded and comprehensive product road map. Overall, SAP registered the largest improvement of any of the evaluated vendors in IC-BPMS capability compared with the previous report on products in this category that was published in December 2006.
- **Cordys Software.** For the first time, Cordys achieved a leadership position based on its strong scores across all of the major functional areas: EAI, BPM, B2B, and SOA.

Strong Performers: Good Solutions For Many Requirements

- **Microsoft.** Microsoft BizTalk scored well in the areas of EAI and B2B support but does not provide comprehensive out-of-the-box support for BPM; it relies on custom development or established alliance partners for this capability.
- **Sterling Commerce.** The Gentran Integration Suite (GIS) has strong B2B and integration features, which is not surprising considering this vendor's background. However, while the product has solid process management features, the process modeling and monitoring would benefit from further enhancement.

- **Sun Microsystems.** Sun dropped out of the Leader category in this evaluation due to lower scores in the areas of B2B, BPM, and overall product strategy. In particular, its product has limitations related to service-level monitoring, simulation capabilities, and built-in support for integrating with popular office suites that have dragged down its overall BPM scores.

Risky Bets: Not Appropriate For The Long Haul

- **Oracle (BEA — WebLogic Integration).** Prior to Oracle's acquisition of BEA Systems, BEA's IC-BPMS product lineup consisted of three key components: BEA WebLogic Integration (WLI), BEA AquaLogic Service Bus (ALSB), and the BEA AquaLogic Enterprise Repository (ALER). We believe that this combination would have easily scored in the Leader category based on our earlier evaluations and on product briefings with BEA management. However, Oracle renamed ALSB and ALER and now includes them as core components of the Oracle SOA Suite. WLI is still available and could still be combined with the renamed Oracle products, but we do not believe that is a wise course of action, as Oracle's stated direction for these products would not support this strategy.

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 2 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 three 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 two 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 lab evaluations, 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 A recent Forrester report discusses the evolution of BPM suites in detail. See the June 25, 2008, “[Use A Comprehensive Set Of Criteria When Selecting An IC-BPMS Tool](#)” report.
- ² For details on the evolution of IC-BPMS products and a list of recommended selection criteria, see the June 28, 2008, “[Use A Comprehensive Set Of Criteria When Selecting An IC-BPMS Tool](#)” report.
- ³ To read several case studies highlighting operational improvements, see the July 7, 2008, “[Using BPM To Improve Operational Efficiency](#)” report. To read other case studies that discuss enablement of innovation see the July 7, 2008, “[Using BPM To Support Innovation](#)” report.
- ⁴ Forrester published a reference architecture model for the IC-BPMS space. See the October 2, 2007, “[The IC-BPMS Reference Architecture Model](#)” report.
- ⁵ Forrester has documented a strong case for the value of Dynamic Business Applications. See the September 24, 2007, “[The Dynamic Business Applications Imperative](#)” report.
- ⁶ For a complete analysis of the potential impact of the Oracle acquisition of BEA Systems, see the July 30, 2008, “[Oracle Absorbs BEA’s Middleware: The Impact On Application Development Managers](#)” report.
- ⁷ For more details of this survey, see the February 19, 2008, “[The EA View: BPM Has Become Mainstream](#)” report.
- ⁸ For the complete evaluation details of TIBCO’s scores in the HC-BPMS area, see the August 2, 2007, “[The Forrester Wave™: Human-Centric BPM For Java Platforms, Q3 2007](#)” report.

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Headquarters

Forrester Research, Inc.
400 Technology Square
Cambridge, MA 02139 USA
Tel: +1 617.613.6000
Fax: +1 617.613.5000
Email: forrester@forrester.com
Nasdaq symbol: FORR
www.forrester.com

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