



Vendor Insight

BPM technology: Vendor capability comparison, IH10

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Through IH10, we have published new or updated in-depth assessments of BPM technology offerings from six vendors: Appian, IBM, Oracle, Pegasystems, Software AG and TIBCO. Our assessment of Lombardi currently remains at its IH09 status, reflecting its ongoing absorption into IBM's offering. This report provides an overview of the state of the BPM technology market today, explains our approach to assessing BPM technology offerings, and lays out a high-level comparison of the offerings from these seven vendors.

This Vendor Capability Comparison report forms part of a series of reports from MWD which assess vendor offerings in the area of BPM technology – that is, technology-related capabilities which support organisations adopting BPM to design, develop, deploy, monitor and optimise partially- or wholly-automated business processes. More detail on our assessment approach and individual vendors' offerings is provided in other MWD reports: please see the "Further reading" section at the end of this report for details.

You can compare our BPM assessment reports side-by-side against each other, using your own organisation's constraints and requirements to personalise the results, using MWD's interactive online BPM vendor comparison tool. The tool is provided as part of MWD's BPM continuous advisory service. You can find out more about this service at <http://www.mwdadvisors.com/services/cas.php>.

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Summary

Following strong growth in 2009 BPM continues to be a hot topic in 2010, fuelled by the need to increase business efficiency and decrease time-to-market for business products and services

In 2010, although the global economic downturn has still not released its grip on organisations, spending on BPM technology continues to grow significantly, with some vendors experiencing year-on-year revenue growth of more than 30%. In these tough times, organisations facing a financial squeeze are turning to BPM to help them streamline their operations. Others in better financial positions are turning to BPM to help them bring new products and services to market faster and enter new markets more quickly.

Diverse supplier backgrounds create a confusing technology landscape

Despite a gradual maturing of this market, there's still great diversity in customer expectations and in the functionality available from vendors. In our assessments, rather than grouping vendors based on their heritage, we differentiate them on the basis of the capabilities they offer in support of six real-world "process management scenarios". We also assess the likely cost of ownership you'll experience throughout the BPM lifecycle.

In our functionality dimension, scoring is fairly even but pure-play vendors have the edge

Most of the vendors we cover are able to deliver strong or very strong capabilities in our seven core functionality areas. In general support for process discovery and requirements analysis, together with simulation, is weaker than for other areas – but technology improvements from all vendors are closing this gap. SaaS-based offerings from vendors like IBM, Software AG, Appian and Lombardi are able to be updated often – meaning we're seeing competitive positions shifting quickly. This is set to continue as a key vendor battleground through the rest of 2010 and into 2011.

In our scenarios dimension, the field is levelling out

When it comes to which vendors provide the best support across our six process management scenarios, the field has levelled out in 2010. The previous leaders (IBM and Oracle) are being joined by Pegasystems and Software AG as these vendors work hard to broaden the applicability of their tools. The other high scorer here is Appian, which holds its own against much bigger vendors in this respect. It scores well due to the very comprehensive capabilities it delivers "out of the box" – all straightforward to access and use because of the inventive way that they're integrated into the design and monitoring environments.

In our ownership dimension, organically-grown suites are still the winners – though the gap is narrowing

Our ownership assessment dimension – which examines how vendors' technologies help minimise the costs of managing the process lifecycle – favours technology offerings which present their capabilities simply and consistently to business analysts, developers and administrators. Those that sell software suites which have been built "from the ground up" should have an edge. Lombardi and Pegasystems score best here, followed closely by Appian and Software AG. Intriguingly, Oracle is very close behind.

IH10 BPM market overview

BPM is becoming a mainstream proposition, but confusion and opportunity still reign

Business Process Management (BPM) is hardly a new idea, but it's taken a long time to really make inroads beyond leading-edge adopters and into the consciousness of broad swathes of industry.

In 2008, all four of the very largest enterprise software suppliers – IBM, Microsoft, Oracle and SAP – made BPM a central element of their product portfolios and marketing efforts. Since then, we've seen some consolidation (Lombardi went to IBM; Savvion went to Progress Software) but the number of “pure-play” BPM technology vendors is holding quite steady – and in the past year, we've seen a number of them growing at a very fast pace indeed (up to 50% year-on-year). Clearly, despite the serious economic downturn we're still experiencing, BPM remains a growth area for technology vendors large and small alike. What's more, the level of BPM market development can only be categorised as “just entering the mainstream”. There remains a very large untapped opportunity.

We find strong indications that leading organisations have moved beyond using traditional modelling tools and software packages/development tools to implement process improvements, to using more specialised BPM toolsets (or “BPM Suites”). However it's still the case that for most, pursuit of true continuous process improvement is some way off. Even where more specialised tools are being used, most users are still looking at implementation of process improvements as one-off, “big bang” activities. Nevertheless, the number of strong case studies showing compelling ROI is growing fast.

Although the market is maturing, there's still a lot of chaos and confusion about the scope of BPM and what's required from supporting technology and tools – and there's still a great degree of technology diversity under the BPM umbrella.

Support for social software features, Software-as-a-Service delivery and dynamic process behaviour are the main vendor focuses

In examining the current plans of many BPM technology vendors, it's clear that there are three areas which are top-of-mind for most of the vendors:

- **Social software features.** Pure-play BPM specialists and generalist platform vendors alike are weaving social collaboration capabilities through their BPM tools. Most of the focus is on opening up process discovery and requirements analysis to allow the broadest possible range of stakeholders to contribute. However some vendors are taking things further, adding open collaboration and information sharing features to their operational “process workspaces” to support collaboration between process participants at runtime, and also to their process monitoring and optimisation environments.
- **Software-as-a-Service (SaaS) delivery.** Most of the significant BPM technology vendors have a SaaS offering of one kind or another. For some vendors the SaaS model is primarily used to deliver a low-cost entry point into process discovery, analysis and design; for a few it also extends into supporting operational process deployment. Regardless, we find that customers like the new options – and are aggressively using them to get started on proof-of-concept work quickly and cheaply.
- **Support for dynamic process behaviour.** Over the past year we've seen every significant BPM technology vendor highlight the ways in which their tools can support situations where process participants need to change the way that individual process instances flow and unfold at runtime, departing from the process model template. This, as with the other two items listed above, is a very welcome development as it further broadens the range of scenarios that BPM technology can be applied to.

Supporting the promise of BPM

We're not short of tools that claim to enable us to build business software solutions that can be deployed and changed quickly, nor are we short of tools that claim to enable non-technologists in business to build software. The promise of BPM may on the surface appear similar to both of these claims, but in reality, it's much more than that – BPM is a transformational tool for business. If organisations are going to realise the potential business value of BPM, their technology tools must have some key characteristics that take them beyond concepts like “model-driven development”. BPM initiatives have to be able to coordinate activity across many teams, departments, and systems – it's simply not enough for them to be limited to working within one domain. They have to bake analysis, monitoring and measurement of business activity into the act of automating processes. And they have to promote the involvement of business specialists in the process of process management.

We believe that to be market leaders, BPM technology tools must support all these principles¹:

- **Business has to be able to take the driving seat.** BPM initiatives can't just be driven by IT staff; they need to actively involve both business and IT stakeholders if they are to offer real value. Within each stage of the process management activity cycle (*understand, implement, monitor, optimise*), tools and practices need to foster this collaboration – and in some parts of the activity cycle business people need to be able to take the driving seat.
- **BPM has to be measurable and justifiable.** BPM tools need to support and demonstrate a business case for their broad deployment by showing how BPM technology and practice drives waste from processes, improves quality, enables products and services to be brought to market faster, and so on. The only way to do this is to measure process effectiveness before the application of BPM and then measure it after. BPM technology vendors have to find ways to help their customers measure process effectiveness before large investments are made.
- **BPM needs to support transformation decision-making.** Successful business transformation is about much more than being able to manage processes better. Process change is a product of the decision to make a significant business change. But although process change occurs downstream of a decision to enact business change, BPM initiatives and tools are in a great position to provide input. To do this optimally, though, BPM tools have to enable business people to choose the ways in which they want to instrument processes and receive events or alerts.
- **BPM technology has to be ‘part of the furniture’.** Another way that BPM can improve its chances of being seeded throughout an organisation is for the user interface elements of the technology, where processes meet individuals, to be as invisible as possible. Early adopters of BPM tools have by-and-large been content to use technology which specifies its own user interfaces for task lists and task forms. If BPM is to truly become a mainstream proposition, these interfaces will have to be delivered in contexts that individuals are already comfortable with.
- **BPM success needs platforms, not one-off technologies.** The world of business processes is far from straightforward. Some processes are very stable and predictable; some have to be flexible and dynamic. Some are highly automated and procedural; others are very collaborative and focused largely on using the tacit knowledge held in the brains of key topic experts. MWD bases its BPM technology analysis on six process scenarios where BPM initiatives should be able to add real value (see below). If BPM is to see real success as a transformation tool for business, and drive improvements beyond the confines of departmental implementations, then BPM tools will have to deal with many types of process, each with its own requirements and constraints.
- **Supporting and managing change has to be central.** A key part of the BPM promise is about effectively managing process change. Without this, BPM may prove to be very exciting to both business and IT communities initially, because of how it helps people collaborate to automate processes; but later, as requirement change backlogs build up, disillusionment will set in – on both sides. If BPM is to see real success as a transformation tool for business, then BPM tools are going to have to help IT keep pace with changing business requirements.

Assessing BPM technology offerings

With the above principles in mind, in building our BPM vendor capability assessment model² we decided that a simple, one-dimensional approach, focused purely on core functionality, would give prospective technology buyers an incomplete picture. Given the diversity of process management scenarios that are commonly found in enterprises which BPM technologies should be able to address, and given the importance of being able to effectively manage change over long periods through the lifecycle of business processes, we elected to use a multi-dimensional assessment model that analyses vendors' offerings from three key perspectives: core functionality, scenario support, and cost of ownership. Figure 1 overleaf provides a high-level summary of the key assessment criteria that we use.

Functionality

The **functionality** dimension of our assessment model focuses on core technology capabilities that will play a valuable role in delivering on the BPM promise, whatever kind of process management scenario is in play.

We assess offerings' capabilities in the following seven functional areas: discovery and analysis; design and development; simulation; rules; integration; deployment and execution; and monitoring and optimisation.

Scenarios

The **scenarios** dimension of our assessment model focuses on technology capabilities that are particularly important in serving the needs of particular process management scenarios.

We assess offerings' capabilities in support of the following six process management scenarios: sequential workflow; straight-through processing; case management; content lifecycle management; collaborative process work; value chain participation.

In some cases, the capabilities that are important to serve one scenario are also required to provide support for another scenario. As a consequence, scores in the scenarios dimension aren't completely independent of each other.

Ownership

The **ownership** dimension of our assessment model focuses primarily on architectural aspects of vendors' offerings, rather than on functional elements. The purpose of this assessment dimension is to highlight the relationship between the way that an offering is designed and built, and the overall costs that are associated with managing the lifecycles of business processes to support a BPM initiative over time.

We assess the offerings' capabilities from three perspectives: the cost of development; the cost of management; and the cost of change.

Other considerations

In selecting a BPM vendor and offering, there may be other very important considerations to explore. There may be elements of your technology environment, supplier management strategy, architecture practice or other IT practices which will make some offerings more appealing than others. Equally, your organisation may have particular requirements regarding the vendors you work with – their viability, their ability to work with you in your geography, their partners, and so on.

Although our published research reports lay out vendor assessments purely along the three dimensions outlined above, the online vendor comparison tool³ that we provide as part of our BPM Continuous Advisory Service also includes information related to these other key considerations.

Figure 1: A summary of MWD's BPM technology assessment criteria

Functionality	
Discovery and analysis	What level of richness is there in terms of what can be explored and modelled? How feasible is a truly collaborative approach to discovery and analysis? Can models and documents be easily exported and shared?
Design and development	What features are available to assist use by people with different skillsets? To what extent can you model (not code) different aspects of a BPM implementation, and how rich can your models be? Can models drive the way that process monitoring is configured? What capabilities are available to specifically support our six BPM process scenarios?
Simulation	How well integrated can simulations be into design and development work and tools? How closely can simulations match real-world work environments? How much flexibility is there in interpreting and comparing simulation results?
Rules	What options are available for implementing decisions in processes? How sophisticated can rule sets be? Are there facilities to help manage change? How easy is it to reuse rules?
Integration	How sophisticated are the tools provided to assist the integration of processes with external applications, systems and data sources?
Deployment and execution	What features are available in process model deployment? Does the runtime environment execute and manage processes efficiently and flexibly? Can process structures change dynamically at runtime? What capabilities are available to specifically support our six BPM process scenarios?
Monitoring and optimisation	Can monitoring be carried out in the context of modelled KPIs and/or goals? How is monitoring data stored, managed and exposed for analysis? How open and flexible is the display and publishing of monitoring information? To what extent can information observed from running processes be automatically used to drive process optimisation?
Scenarios	
Sequential workflow	How sophisticated are the tools provided to help with the design and deployment of forms, tasklists, etc? What level of support is there for modelling organisational structures, and having those models influence the way that work is distributed and managed at runtime? Is it possible to report and monitor on performance from an organisational perspective?
Straight-through processing	How easy is it to design processes that will operate with no human intervention? How sophisticated is the support for semi-automated process error-handling? Can the runtime environment scale to meet high-performance, low-latency operational requirements?
Case management	What level of support is there for modelling organisational structures, and having those models influence the way that work is distributed and managed at runtime? Are content/document management facilities provided, or are they easy to integrate? Can process structures be modified dynamically? Is it possible to report and monitor on the performance of cases?
Content lifecycle management	Are content/document management facilities provided, or are they easy to integrate? Is it possible to report and monitor on performance from an organisational perspective?
Collaborative process work	What tools are provided to help specify/configure collaborative work activities that can be seamlessly integrated with structured processes? Are collaboration facilities provided, or are they easy to integrate?
Value chain participation	How easy is it to define organisational models that include external groups, with their own security requirements and permissions? How easy is it to associate different external groups with distinct process variations? How easy is it to provide tailored, secured performance dashboards to external participants?
Ownership	
Cost of development	How clear is the separation of concerns in the design and development environment? How well-integrated are the design and development tools? Where third-party technology is part of the offering, how well-integrated are the design tools with the rest of the toolset?
Cost of management	What features are provided to make the runtime environment straightforward to configure and administer, even in large-scale deployments? Is there a comprehensive set of administration tools? Where third-party technology is part of the offering, how well-integrated is the administration environment?
Cost of change	How clear is the separation of concerns in the design and development environment? What kind of model versioning and change management facilities are provided, both in the design and runtime environments?

The Further resources section at the end of this report highlights the MWD reports where these criteria are explained in more detail.

Vendor overviews and IH10 comparison

A note about our IH10 vendor selection

Since 2008 our BPM technology vendor assessment programme has focused on offerings from Appian, IBM, Lombardi, Oracle, Pegasystems, Software AG and TIBCO. We selected this initial set of vendors based on three factors: their profile in the industry, the technological breadth of their offerings, and the level of ongoing investment they're making in driving their offerings forward. We didn't select vendors based on the technologies they use to build their products, or the specific types of process management scenario they are best suited to supporting. In our IH10 assessment update, we revisited the offerings of all these vendors with the exception of Lombardi, which is currently in the process of being absorbed into the IBM organisation. In this round, our assessment of Lombardi remains in its IH09 state and our IBM assessment focuses on IBM's *WebSphere* and *FileNet* technologies.

The vendors compared

Figures 2, 3 and 4 below provide an overview of the strengths and weaknesses of the offerings of the seven vendors we currently cover as they stand at our assessment round – in our functionality, scenarios and ownership dimensions respectively. Lombardi's scores are based on our assessment from IH09.

Consider our assessments in the context of your own needs and constraints

Figures 2, 3 and 4 below provide a high-level representation of the unweighted scores from our BPM technology vendor assessment database (larger dots represent higher scores). We strongly advise you to consider these scores in the context of your own constraints and requirements when shortlisting BPM technology vendors, and weight the scores accordingly. It's very unlikely that these unweighted scores will, by themselves, help you select the vendors that are the best suited to your needs. Advisory service clients can use MWD's interactive online BPM vendor comparison tool to apply filters and weightings to our base scores to obtain a personalised set of vendor rankings.

To see if your organisation is already a subscriber to our BPM continuous advisory service, or to find out more about becoming a subscriber, please visit <http://services.mwdadvisors.com>.

Figure 2: Functionality

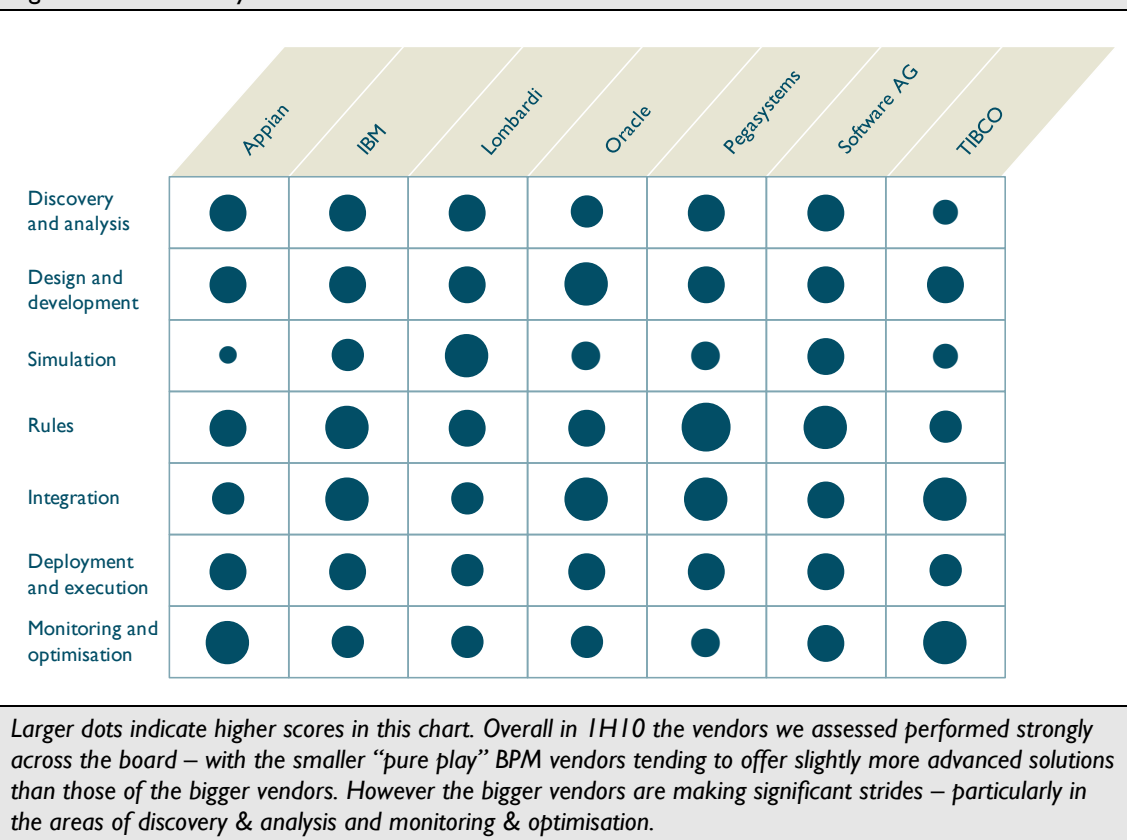
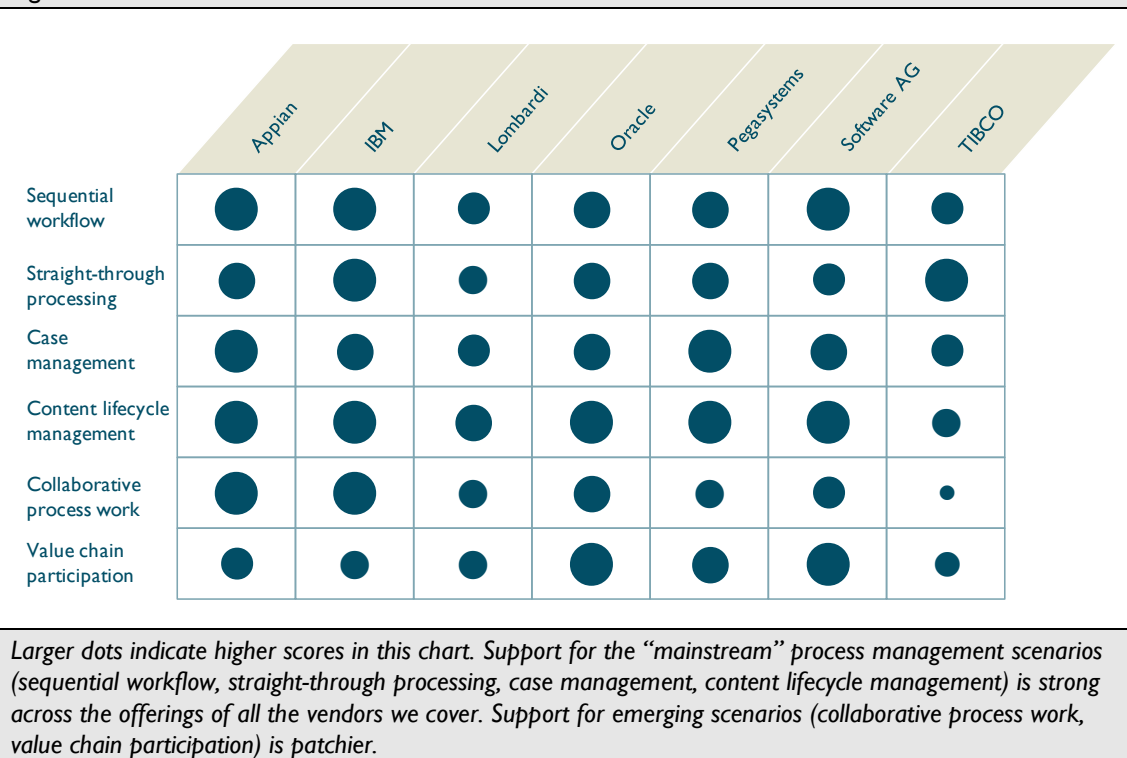
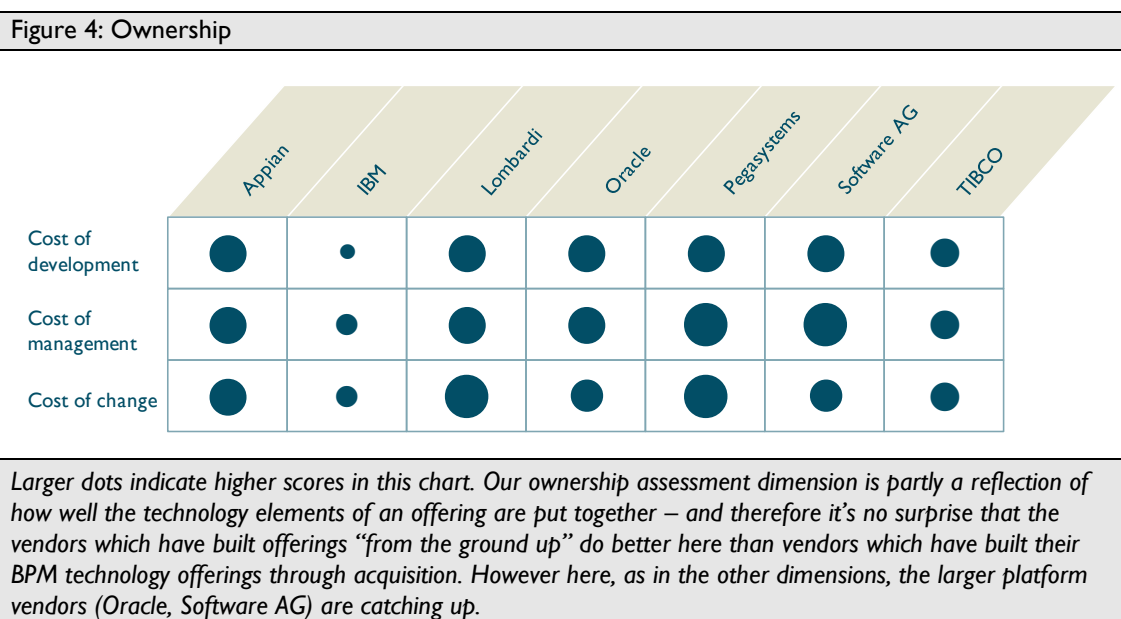


Figure 3: Scenarios





Vendor overviews

Below we provide a brief overview of the strengths and weaknesses of each of the vendors we currently cover. Overviews of Appian⁴, IBM⁵, Oracle⁶, Pegasystems⁷, Software AG⁸ and TIBCO⁹ represent the findings of our IH10 assessment round; the Lombardi¹⁰ overview represents the findings of our previous assessment round conducted in IH09.

Appian

Appian is a BPM specialist vendor: its BPM products and services are its core focus. Founded in 1999, the company currently has around 300 customers and 190 employees. Appian's 2009 results were very strong, including 67% growth in software license revenue and a doubling in its new customer acquisitions over the previous year. Appian focuses its efforts across government and commercial industry sectors, including retail, manufacturing, financial services, service providers, healthcare, and energy. In 2009 its international business grew nearly 60%, contributing roughly 30% of total revenue. Appian's BPM technology offering comprises two core products – *Appian 6* and *Appian Anywhere* (which is a hosted, but feature-equivalent, version of *Appian 6*, launched in 2007).

The technology products are unusual in the broad range of capabilities that they pull together and integrate strongly – combining process management, portal, real-time analytics, content management, document management, and collaboration facilities – on one common platform, with a consistent set of completely web-based design, development and administration tools. Appian has also done something that no other BPM technology vendor has yet pulled off: it has found a way to expose a great many of the technical capabilities implemented in the platform (including in its content management, document management, collaboration tools and so on) directly to process designers, making it possible for non-specialists to quickly define and deploy process applications that exhibit very sophisticated and dynamic behaviour. The result of all this innovation is an offering that provides strong or very strong support across all of our six process scenarios. Simulation is the one area where Appian's offerings do deliver less than the technologies of its closest competitors (support for discovery and analysis isn't particularly strong, but that's not uncommon in today's vendor offerings as this is a relatively new area of exploration and exploitation).

In v6.0.2 Appian also significantly improves its ability in the process discovery and requirements area, too – as well as weaving social team-working capabilities into the design environment to help teams further speed development and strengthen change management.

As well as introducing its own process discovery tools Appian also enhances its capabilities in process discovery, analysis, simulation and change management through a partnership with MEGA International, a European provider of Enterprise Architecture, Business Process Analysis, IT Governance and strategy planning tools.

IBM

IBM has a long history as a provider of process automation technology. In recent years the company has focused most of its efforts on building a new process management platform within its *WebSphere* software unit, as well as buying companies with strong technology relevant to BPM (FileNet, ILOG and Lombardi, to name but three). The centre of gravity of IBM's BPM technology offering still lives within *WebSphere* though – and most of the company's internal BPM-related software development work happens there. In the past year IBM has further enhanced its *BPM BlueWorks* hosted process discovery and requirements analysis environment, as well as adding a related on-premise discovery and analysis toolset (*Business Compass*) and pulling its rich user interface framework, Business Space, right into the heart of its BPM-related development efforts across the board.

IBM's two BPM technology stacks are bundled within the BPM Suite today as two distinct "Editions" – the *WebSphere Dynamic Process Edition* and the *FileNet Business Process Manager* – each of which is recommended for different scenarios. Individually, each Edition today provides solid capabilities in support of the scenarios it's positioned for – and, with version 7 of the *WebSphere Dynamic Process Edition*, there's good support for the majority of our process scenarios (including case management and collaborative process work). Courtesy of *BPM BlueWorks* and *Business Compass*, support for process discovery and requirements analysis is strong too.

Where IBM's BPM proposition is less strong today is in support of customers with complex process management and improvement needs which will need technologies from both Editions to be employed. For these customers, until IBM delivers better technology integration across the piece, IBM's portfolio will offer broad and deep functionality, but it will be at the expense of some technology complexity, duplication and cost – though this is improving, release by release. With version 7 of the *WebSphere Dynamic Process Edition*, the role of the Business Space – which provides a common user interface through which information and functionality for business managers, process analysts, process participants and administrators are exposed – is expanded, so that Business Space now makes the overall portfolio much more consumable for users, as well as enabling some sophisticated process optimisation scenarios.

Lombardi

Lombardi Software was a BPM specialist vendor with around 300 customers and around 230 employees until it was acquired by IBM in late 2009. Lombardi's BPM technology offering comprises two core products – *Teamworks* (now on version 7, as of May 2009) and *Blueprint* (first released in 2007, now on its spring 2009 release). Both of these are now being folded into the IBM BPM range of offerings.

Teamworks delivers a set of tools that provide strong functional capabilities across the board – from process design and development through simulation, deployment, runtime administration to operational process monitoring and analytics. *Teamworks'* simulation capability is particularly noteworthy. The well-integrated toolset, built on a common "Shared Model" repository and runtime platform, helps foster continuity through the BPM activity cycle – and with new features in *Teamworks* 7, most notably the Process Center environment and an enriched underlying repository model, the tools can now help you effectively manage change in large, complex design and runtime landscapes. Advanced design, runtime and dashboarding capabilities (many of which are also available through *Teamworks for Organizational Management*, *Teamworks for Office* and *Teamworks for SharePoint*) can together provide a firm technology foundation for BPM implementations, across all of our six types of process scenario.

Oracle

Although it was not often called out, one of the strongest technology elements that Oracle brought on board when it acquired BEA Systems in 2008 was BEA's BPM technology offering. In the release of *Oracle BPM Suite 11gR1*, the company has taken this former BPM jewel and combined it with a number of its existing BPM-related technologies to deliver an integrated suite which plays a strategic role in Oracle's continued Oracle Fusion Middleware market push, and also forms a keystone of the Oracle Fusion Applications development roadmap.

There are many ways in which the integration of the former BEA BPM technology (itself acquired when BEA bought BPMS specialist Fuego) with the rest of the existing Oracle technology stack could have gone wrong – but our assessment is that it's not too strong to say that in putting *Oracle BPM Suite 11gR1* together, Oracle has made a lot of smart decisions to take the best of its new and existing assets and combine them. The *Oracle BPM Suite* now represents a very strong proposition indeed. The company bundles a broad range of complementary technologies with the core of the BPM offering – including *Business Rules*, *Business Activity Monitoring (BAM)* and *Enterprise Content Management (ECM)*, together with *WebCenter Suite* (which underpins the *BPM Suite*'s human facing interface and also provides collaboration facilities for analysts, process participants and administrators). It continues to provide strong functionality more or less throughout the entire BPM activity cycle – and where it isn't so strong (in process discovery and analysis), Oracle offers its *Business Process Analysis Suite* (or *BPA Suite* – which is based on a licensed version of IDS-Scheer's *ARIS Business Architect* product) as an option that customers can license.

Studio, the main design tool within *Oracle BPM Suite*, is also well-integrated with the design tools for the *Oracle SOA Suite* – bridging the gap between BPM and SOA in Oracle's technology portfolio, and providing a sophisticated integration environment for customers needing to carry out integration between business processes and external applications, systems and data sources. The end result is a highly capable BPM technology offering that also provides sophisticated integration options.

Pegasystems

Pegasystems is a BPM technology vendor with an unusually long heritage: it was founded in 1983. It currently has over 400 enterprise customers and 1200+ employees. It's publicly traded, and in recent times it has been performing very well: year-on-year license revenue growth has been over 50% for each of the last two years. Overall revenue for its last fiscal year (ended December 2009) totalled \$264m (up 25% from around \$212m the year before). In March 2010 the company announced that it would utilise a large chunk of its resulting cash pile in making an offer to acquire CRM and call centre optimisation specialist Chordiant – further boosting its capability in “customer experience transformation”.

Pegasystems sells its BPM technology platform, *SmartBPM* (formerly known as *PegaRULES Process Commander* or *PRPC*), to a variety of industries – including financial services, healthcare and insurance. *SmartBPM* is bundled as the core element of a broader BPM offering called the *SmartBPM Suite* (currently on version 6.1) – which extends *SmartBPM* with a simulation engine, a historical process analysis engine, and a set of additional technology administration tools. Given its technological background, it's no surprise that the core of the *SmartBPM Suite* utilises a powerful inference rules engine throughout to drive all its behaviour. Correspondingly, rules are the foundation of all the key design constructs in *SmartBPM*.

The *SmartBPM Suite* delivers a strong showing across many of the functional areas we consider in our assessment, particularly in design and development, and (not surprisingly) rules. A key construct in the way that *SmartBPM* applications are put together, “declarative rules”, enable highly sophisticated, dynamic, event-based behaviour – where, dependent on context, the flow of work can be shaped to take highly customised paths through different assignments and activities. Support for most of our six process management scenarios is very strong, partly due to the sophisticated nature of the core platform, and partly due to the content and case management frameworks that are provided.

A key and welcome feature of version 6.1 of the *SmartBPM Suite* is the addition of easy-to-use graphical process discovery tools based around the company's BPM methodology, together with design and development collaboration capabilities that allow technical and non-technical specialists to participate in process improvement. Still, there is some room for improvement. Simulation is one area where the capability of the tools needs to be improved if Pegasystems wants to deliver market-leading functionality.

Software AG

With its 2007 acquisition of webMethods, Software AG became a serious player in the BPM technology market. With its acquisition of IDS Scheer in early 2010, the company has forcefully restated and extended its commitment to business process improvement. With the webMethods and IDS Scheer technology and people on board, Software AG is now able to offer a broad and deep portfolio of BPM technologies and services. The central technology elements of Software AG's current BPM implementation offering are its new hosted, collaborative process discovery and requirements analysis tool *ARISAlign*, and the webMethods *BPMS* (though of course IDS Scheer's *ARIS* toolset also plays a contributing role). The *BPMS* combines an *Eclipse*-based set of integrated design and development tools (the webMethods *Designer* and *Developer*) with one runtime environment (based around the well-proven webMethods *Integration Server and Broker*) and the *My webMethods Server* – which is a sophisticated environment for the delivery of task interfaces that also hosts monitoring dashboards and process administration functions.

With the addition of the free-of-charge *ARISAlign* hosted service, the Software AG technology offering's strengths now extend beyond the *BPMS*'s notable capabilities in the areas of rules management, process integration and execution, and process monitoring and optimisation to include process discovery and requirements analysis. The richness and flexibility offered in the webMethods *Designer*, coupled with the capabilities of the *Task Engine* and *My webMethods Server*, provide an environment that is particularly strong in its support of process scenarios where human process participants are a significant element in the mix, as well as being strong in support of straight-through processing and value chain participation scenarios. With the addition of webMethods *Trading Networks*, process automation support is extended to value chain participation scenarios. What's also particularly noteworthy about the webMethods *BPMS* is that the way the technology pieces are put together reflects a mature approach to product and technology architecture – and the end result is very likely to be a major positive impact on the cost of development, management and change in your BPM initiative.

Version 8 of the *BPMS* sweeps away a couple of the weak spots in the offering: namely support for modelling dynamic process structures (dynamic activity selection, compensation and cancellation activities) and integration with third-party e-forms and document management platforms. There are still some weaknesses, of course. Although version 8 of the design tools offer an increased degree of flexibility when it comes to designing processes that need to exhibit dynamic behaviour at runtime (through features like 'dynamic referenced processes'), more could be done to help people design processes that need to interleave with collaborative work practices and environments.

TIBCO

TIBCO is a rare beast in the crowded BPM technology market: a large independent enterprise infrastructure software provider that isn't a BPM-only specialist. The company has a long history of providing integration software that offered some process co-ordination capabilities, and it has had a focused BPM offering since it bought Staffware in 2004. Staffware technology initially formed the backbone of what is now known as the *iProcess Suite*, which is TIBCO's BPM technology offering. The Staffware technology has since been very significantly reworked, and complemented by a range of other technologies. The most recent addition is the *Spotfire* business intelligence and analytics technology, which was acquired in 2007 and is available here as part of an "add on bundle" that is now available for the *iProcess Suite*. *Spotfire* provides a welcome boost to TIBCO's process reporting and analytics capabilities by virtue of being easy for non-technical people to use, and designed to allow users to augment process data with important business information from other sources.

Drawing on the current integration points between the various technology components in the BPM offering and TIBCO's other technologies (particularly its *ActiveMatrix ESB*, *ActiveMatrix BusinessWorks* application integration platform and *Complex Event Processing* infrastructure), the company pitches its technology approach as enabling what it calls "BPM+".

The BPM+ label is designed to showcase the breadth and depth of functionality that TIBCO can offer to customers pursuing BPM initiatives. To a large extent, MWD's assessment of the *iProcess Suite* bears out TIBCO's claim. Some of the suite's capabilities – particularly, its support for highly dynamic processes, goal-based process execution and process analytics – are very strong. With the release of version 3.2 of the modelling toolset, *Business Studio*, creates one central place where customers' design and development efforts take place and introduces a number of analysis improvements, setting the stage for more new model-driven productivity features to come. *iProcess Decisions*, which is licensed from Corticon, remains less well-integrated with the rest of the tools and the runtime environment than it might be, however.

If TIBCO is to be able to continue to move forward in delivering on its "BPM+" promise, it will have to go further with the functionality on offer – not because it has a patchy offering, but more because many of its BPM technology competitors are releasing new capabilities – particularly relating to tooling for process discovery and social BPM, and runtime support for collaborative process work – at a faster rate. There could also be more support for value chain participation scenarios within the design-time tooling.

Further resources

Below are some references to other MWD reports and tools that you might find useful in your exploration of BPM technology offerings.

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- [1] **What drives BPM technology requirements?** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=106> This report is freely available through our Guest Pass library.
- [2] **Assessing BPM technology** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=107> This report is freely available through our Guest Pass library.
- [3] **Online BPM vendor comparison tool** – updated April 2010.
http://services.mwdadvisors.com/bpm/comparison_home.php Available to BPM advisory service customers only.
- [4] **BPM technology: Appian** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=265> Available to BPM advisory service customers and can also be purchased separately.
- [5] **BPM technology: IBM** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=264> Available to BPM advisory service customers and can also be purchased separately.
- [6] **BPM technology: Oracle** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=263> Available to BPM advisory service customers and can also be purchased separately.
- [7] **BPM technology: Pegasystems** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=262> Available to BPM advisory service customers and can also be purchased separately.
- [8] **BPM technology: Software AG** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=261> Available to BPM advisory service customers and can also be purchased separately.
- [9] **BPM technology: TIBCO** – April 2010.
<http://www.mwdadvisors.com/library/detail.php?id=260> Available to BPM advisory service customers and can also be purchased separately.
- [10] **BPM technology: Lombardi** – July 2009.
<http://services.mwdadvisors.com/bpm/detail.php?id=176>. Available to BPM advisory service customers and can also be purchased separately.

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