

WHITE PAPER

TIBCO Staffware Process Suite: "Exhibit A" of the Benefits of Freestanding BPM Software Offering Workflow and Straight-Through Processing

Sponsored by: TIBCO

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IDC OPINION

Enterprises want choices. They want choices when it comes to parts suppliers, transport providers, and professional services organizations. They want options when it comes to hiring and contracting out. They want back-ups to their back-ups to make sure they can meet their goals. So, not surprisingly, when it comes to business process management (BPM) software, they want choice. They want their BPM product to provide choice at least two ways: freestanding from other packaged software offerings and loosely coupled relative to the technology stack. These users tend to be larger enterprises with complex service and/or product lineups, often in services industries. To be clear, there are also many enterprises that are happy to choose a BPM product totally linked to much of the other software they have installed. These enterprises tend to be smaller and are satisfied to run their enterprises according to the business process flows designed by someone else. However, if you are in the group that wants or needs your BPM software freestanding and loosely coupled but the BPM product is not a suite, you might get more choice than you can support. You will need to choose your own rules engine, modeler, integration server, business intelligence software, event processor, and so forth, and make sure they all work together. In this research sponsored by TIBCO, provider of the Staffware Process Suite, we explore the plusses and minuses of the multiple permutations of BPM software choice. We find:

- Most users find themselves choosing between the two BPM extremes (i.e., getting their BPM out of the box in an ERP system at one extreme, or totally building their own BPM solution) and go with freestanding BPM software that is pre-integrated into a BPM suite.
- Freestanding BPM software is better if your process flows change constantly, and are such that you need to be independent of any particular OS or database or other parts of the technology stack.
- Being independent and freestanding (as TIBCO's offering is) is especially important where the business process set is constantly changing because it involves as much activity outside the enterprise — with customers and suppliers — as it does within.
- It makes sense to deploy a BPM suite even if you only have a "point product" BPM need initially because the suite approach simplifies subsequent upgrading.

IN THIS WHITE PAPER

This IDC white paper studies two possibly conflicting trends related to the business process automation (BPA) value proposition and the functional convergence of the BPM/business intelligence (BI) software markets. First, the research asks whether, in the long term, enterprises will prefer the value proposition of freestanding BPM suites as opposed to building BPM functionality into packaged applications, database products, or other software. Second, the research asks whether, in the long term, users will prefer BPM functionality converged into suites or prefer point products that perform the various functions of BPM separately. In suites — while remaining freestanding from packaged application or other software — the BPM software offers a business rules engine, integration server and adapters, exception-based workflow and straight-through processing (STP), orchestration and choreography tools, BI-based optimization, and underlying middleware technology such as complex event processing all in one SKU. A third factor important to potential BPM users is how tightly or loosely coupled the BPM product — freestanding or packaged, suite or point product — is to the underlying technology stack. This white paper uses TIBCO's Staffware Process Suite as an example in explaining these choices. The example of TIBCO combining its integration, optimization, and messaging technology with the long-successful Staffware workflow capabilities is a strong indicator of the way IDC feels all of these various trends will play out in the market.

Methodology

The demand-side data illustrated in tables in this research paper is based primarily on telephone and Internet surveys conducted in North America in December 2003 and September 2004, respectively. Updates of both survey instruments are in the field as of the development of this white paper (November 2005) and the white paper will be reissued if any applicable findings alter the analysis or findings included below. The past and current demand-side surveys targeted IT managers in organizations with more than 100 employees with recommend/acquire responsibility for BPM and application deployment software in general (i.e., application/integration/Web server software and message-oriented and transaction-server middleware). A key technique of the demand-side research is to let respondents define BPM and "application deployment software" by telling us what specific software vendor/brand they have installed and are using as their strategic environment. We defined "freestanding" as not "bundled into, or a prerequisite of, another type of packaged software."

Each case study provided below involved the open-ended interviewing of one or more individuals within targeted TIBCO accounts. Both business and technical decision makers were interviewed.

Note that in the IDC lexicon, business process automation (BPA) equates to business process management, workflow, business process integration, and other such terms commonly used in the IT industry. Two points:

- ☒ There is no taxonomical or judgmental meaning in our acronym; it is simply that in the IDC lexicon, BPM was adopted in the late 1990s as an acronym for business performance management.

- ☒ IDC recognizes that BPM is the more common term for the functionality provided by TIBCO and its competitors, and IDC will use BPM in the rest of this white paper in the same way that TIBCO uses it: to mean business process management.

SITUATION OVERVIEW

"Buying Into" Business Process Management

In studying BPM market issues, one of the key things to look for are typical expectations of both end-user line organizations and the IT operations groups that have to make those expectations happen. IDC research indicates that the following are the most urgent changes that IT departments feel they have to make in their enterprises:

- ☒ Real-time or near real-time monitoring of business processes
- ☒ Integrated access of information and data
- ☒ Better-connected processes
- ☒ Better collaboration

This particular IDC research (*IDC Project Barometer III*, January 2005) also looked at such requirements as lower costs of IT infrastructure, improved security, and faster ability to deploy new infrastructure—all of which, of course, were also important to IT. But 50% of the urgent needs, even from an IT point of view, involved BPM.

When studying BPM market issues, we feel it is important to look at the typical expectations of end-user line organization as well. Other IDC demand-side research (*IDC Line of Business Survey*, June 2004) indicates that the following are end users' major expectations:

- ☒ Applications that better fit business processes
- ☒ Improved access to relevant information and data
- ☒ Better systems for communications and collaboration

In other words, when combining IT's priorities with end-user demands, BPM moves to the top of most enterprises' lists.

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How Are Enterprises Buying BPM?

So given that everyone in an enterprise is "buying into" BPM, how are they "buying BPM"? They have different, potentially conflicting choices. They can buy it "freestanding," or built into packaged applications, databases, or operating software. They can also buy BPM features a la carte via a series of point products or as an integrated suite. IDC finds that:

Enterprises "buying into BPM" have two different, potentially conflicting choices.

- About 33% choose to buy underlying BPM technology freestanding (see Table 1); another third buy this technology bundled into packaged applications, databases or operating software (and the final third do not use application deployment software at all for BPM or any other purpose)
- Of those choosing freestanding, the split between preference for "point products" and "middleware suites" is 50:50, literally and statistically (see Table 2).

TABLE 1

Use of Underlying BPM Technology by Size of Organization (% of Respondents)
Q. Does your organization use any of the following software products? Application servers? Integration servers? Are they freestanding or bundled into other software?

Of all IT management contacted	Total
No	33
Yes, but not freestanding	32
Freestanding	35
Unweighted n =	751

Note: Multiple responses were allowed in the category "Of those that were freestanding."

Source: IDC's Application Deployment Software Study, 2003

TABLE 2

Choice of Type of Underlying Technology by Size of Organization
(% of Respondents)

Q. Which best describes the freestanding product or products?

	Total	Number of Employees		
		<1,000	1,000–10,000	>10,000
Point product — designed to be only one of the three types (AS, IS, or portal server)	50	60	51	45
Middleware suite — designed to be any or all of the types	50	40	49	55
Unweighted n =	263	67	71	125

Base = those that said they had a freestanding application or integration server.

Source: IDC's *Application Deployment Software Study*, 2003

These findings illustrate the two big questions users will want to ask themselves before they even begin to talk to BPM software suppliers: freestanding or bundled, point product or suite. And the findings illustrate, given the fairly even split among users even of different size (refer back to Table 2), that it all depends. We believe:

- It depends at a conscious level on how the BPM software is going to be used.
- It depends, on a possibly subconscious level, how the user feels about the coupling of his or her BPM solution to the IT infrastructure stack.

The second part of this decision process basically asks, "Do I want to let a systems or software vendor own me?" It results from answering a series of supporting questions before you even talk to a software supplier, not the least of which is: "If not tightly coupled to the IT infrastructure stack, what operating software, architecture, and database relationships are available with the BPM software under discussion?" The answers are meaningful to both line-of-business and technical staff. From both sides of an organization, the answers can lead to both cultural inhibitors to instituting BPM (e.g., if the IT shop is J2EE-centric but the desired BPM product only runs on Windows) and to unimpressive return on investment (ROI) calculations and other unexpected or undesired results.

To help answer these questions it is often best to get a firm handle on what the enterprise or organization will be doing with the BPM solution. This does not (always) paint an enterprise in a corner but can help it get past some of the easiest decisions faster, meaning the IT staff and line management can spend more time thinking through the hard decisions.

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This is a decision that basically says "Do I want to let a vendor own me?"

What Are Enterprises Doing with BPM?

Will the project be enterprisewide in support of a single division, a single site or location, or even a single department or workgroup? One fairly easy first decision is depicted in Table 3, which illustrates what other enterprises are doing in terms of BPM given these varying situations.

A second question is what will the enterprises be doing with the BPM solution and underlying middleware. Examples include integrating UIs with data and process sets, hosting Web-based applications, integrating packaged and in-house developed applications, integrating data sources and user interfaces with business processes, hosting component-based applications, managing business processes in complex transactional environments, and so forth. This list is not exhaustive but includes good representation of the possibilities. It is important to know that some of the more difficult objectives might require a point product and that not all suites can support all possible uses of BPM software.

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TABLE 3

North American Organizations' BPA Investment Plans by Scope of Project (% of Respondents)

Q. Please provide the status in your organization of the following application development and deployment software investments by indicating if you currently use, and if you will invest and/ or further invest by end of 2004, in 2005, in 2006 or beyond, or if there are no plans to invest in that area? Business process automation (select all that apply)

	Total	Enterprisewide	One Division	One Site or Location	Department or Workgroup
Currently use	36.4	34.5	34.3	50.0	36.5
Will invest/invest further by end of 2004	15.2	18.7	10.4	14.6	8.2
Will invest/invest further in 2005	16.3	16.9	16.4	18.8	12.9
Will invest/invest further in 2006+ or beyond	7.3	8.2	9.0	8.3	2.4
No plans to invest/invest further	21.0	26.2	16.4	8.3	15.3
Don't know	21.4	14.6	32.8	20.8	34.1
n =	467	267	67	48	85

Note: Multiple responses were allowed.

Source: IDC's *Application Development and Deployment Survey*, September 2004

After size of installation and types of usage, the questions leading to a BPM software decision get harder, but hopefully this suggested cascading approach to winnowing down to a short list will help. Some of the harder questions include the degree of industry specificity required, the extent of role-based functionality expected, whether built-in support for compliance issues is a must, and additional topics. IDC provides detailed "insight" and consulting assistance in support of such decision making in most key industries; contact your local IDC office for more details.

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As just one example of how the decision tree works, we believe that for a single department or workgroup, BPM coupled with a package application or database can make the most sense. But we believe, once an enterprise is talking enterprisewide or out into its supply chain, the organization needs the flexibility of freestanding BPM solutions. This is important not just for the usages already considered but in order to handle future usages not yet considered via upgrades. Flexibility is the key.

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When a Freestanding BPM Suite Is a Better Choice

For those who find freestanding suite the best choice, there is another bridge to cross: should it be loosely or tightly linked to the IT technology stack? We believe loosely linked to be the better choice in circumstances such as the following:

- ☒ An enterprise needs to support the business analyst more than IT; in this case, use of loosely linked technology allows the business analyst and IT department to work with variations of the same tools.
- ☒ An enterprise needs to support "business process iteration" (i.e., the business process set — order to cash, etc. — will change often because of a wide variety of customers and suppliers in an Internet- or Extranet-based BPM flow); often, when rapid and frequent business process iteration is the norm, loosely linked technology reduces the IT department's workload to test and deploy every time a process set changes.
- ☒ Industries such as financial services see frequent mergers, divestitures and acquisitions of product lines—if not entire institutions. These situations also lend themselves to freestanding BPM suites in a loosely linked IT stack. The flexibility of loosely linking the BPM suite to the stack is important in these situations because the underlying stack will change frequently with each merger/acquisition (therefore, the institution or enterprise does not want to be dependent upon it) and — as with the first situation above — it will be up to the less technically astute business analyst to make the change happen.

These are only examples of the various situations where IDC finds a freestanding BPM suite loosely linked to the IT stack to be the better choice. To be clear, IDC believes there is a place for such a tightly coupled suite (as well for point products). In particular, smaller enterprises — especially if driven into BPM usage by a large supplier or customer — might find it best to simply choose the point product or bundled BPM offering suggested by the partner.

IDC finds a freestanding BPM suite in a loosely coupled stack to be the better choice in various operations and dimensions.

The Advantages and Disadvantages of Packaged BPM Software

If users absolutely require a one-to-one software supplier relationship or simply believe their business process set environment is relatively stable, they can use BPM-related deployment software tightly coupled into their preferred packaged applications, into their development tools or database management software, and even into their operating software. This will provide a return on earlier IT investments (if the user already has that packaged application or other software installed), a quicker return on the investment (if the BPM need can be handled by the package out of the box), and potentially lower operating costs (e.g., training of fewer IT staff).

The trade-off is less flexibility in all the areas discussed in the previous section (i.e., operating systems, architecture, types of usage, size of operation supported, etc.):

The trade-off is less flexibility

- ☒ A built-in BPM package avoids "rip and replace" at present.
- ☒ A built-in BPM package may set up a more draconian rip and replace situation later if the packaged software supplier with built-in BPM capabilities fails to keep up with the latest technology, particularly features like business intelligence-based optimization and complex event processing (CEP).

The Advantages and Disadvantages of BPM Point Products

If users have some very specific high-performance issues or complex business process sets with hard-to-package industry- or role-based requirements, they may have no choice but to roll their own from among a selection of point-product rules engines, integration servers, orchestration and/or choreography tools, BI software, and so forth. A nonsuite product (e.g., a separate rules engine) also makes sense if only the IT department is involved (i.e., no business analyst use of the software is anticipated).

The trade-off is less flexibility in staffing the solution as well as more issues in working with a supply chain where it is mathematically less likely that customers and suppliers will be using the same point product. Many industries are supporting efforts to standardize on adapters and connectors to overcome such incompatibility issues. Most BPM providers support a long list of technical adapters (e.g., HTTP, ODBC, and so forth) as well.

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The Advantages and Disadvantages of a Tightly Linked Stack

The relationship to the IT stack is to some extent separate from the freestanding and packaging characteristics. That is, there are some providers of freestanding BPM suites or point products that still implicitly or explicitly require use of certain operating software and/or database. The advantages and disadvantages of the BPM software in such a situation are the same as those listed above, but choice is limited by the vendor that owns the stack.

The type of stack is a third issue that is to some extent separate from the BPM software's characteristics.

What's Next?

Today's Functionality

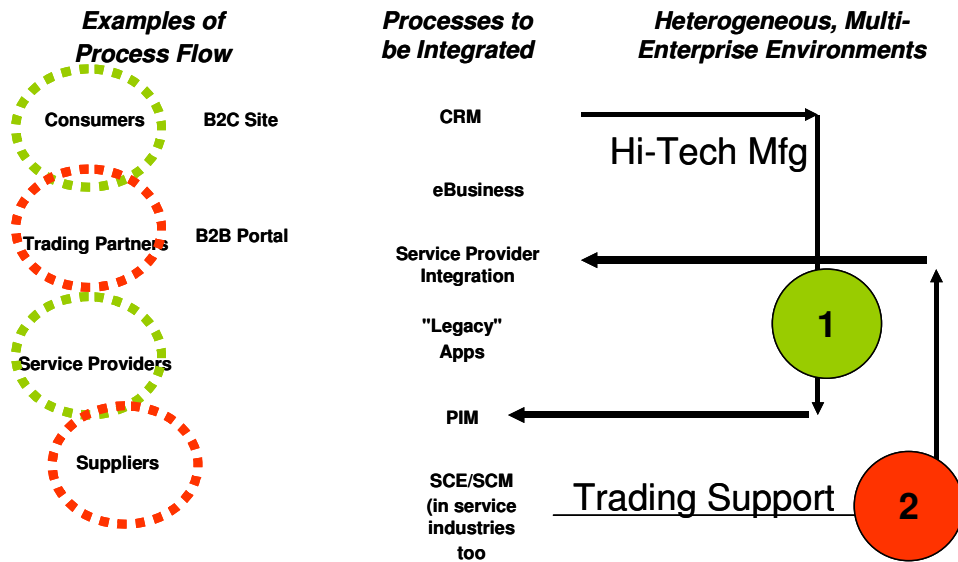
Probably the best reason to concentrate on a middle-of-the-road approach to BPM software is because future technical and general business developments (e.g., ever-tighter supply chains spread across even broader geographies, etc.) are going to make freestanding BPM suites in a loosely coupled stack even more attractive. Figure 1 illustrates the capabilities already available to support supply chains (and internal needs) in a heterogeneous environment.

Products can support the needs illustrated in the figure from workflow human-oriented business processes to straight-through processing and the more typical requirements that combine the two.

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FIGURE 1

Examples of Process Flow In Heterogeneous Multienterprise Environments



Source: IDC, 2005

All the key functions (i.e., rules engines, integration servers, orchestration and choreography tools, BI, etc.) have already converged in leading BPM products, and there is more to come. One of those major next steps that IDC foresees is a trend we call intelligent process automation (IPA).

Intelligent Process Automation, the Next Wave of BPM

BPM has evolved from mainframe to client/server, from horizontal requirement to very specific industry functionality (although that evolution is not complete), and from transactional to collaborative to analytical. IPA combines all of the above.

IPA-based BPM solutions will be based on core business intelligence (BI) and all the BPM features discussed above using event monitoring, exception-based processing, and decision-oriented, predictive optimization. IPA will support easy iteration of the business process flows, and enable repeatable decision-making. This future BPM capability will be characterized by support of

IPA will support easy iteration of the business process flows and enable repeatable decision-making.

- Repeatable, operational decisions
 - Roots in operations research (e.g., airlines, SCP/SCE)
 - Agents are knowledge/information workers
 - Integrated collaboration
- Exception-based
 - Event-monitoring (BAM) triggers process
 - Exception handling (branch of straight-through process)
 - Access to structured and unstructured data in context
- Analytics drives workflow
 - Predictive models evaluate alternatives
 - Optimization considers risks, probabilities
 - Complex rules definition, review, and execution

FUTURE OUTLOOK

The following sections describe the TIBCO Staffware Process Suite, an example of a freestanding BPM product integrated into a suite and based on a loosely coupled stack. The TIBCO BPM product is already making the transition to intelligent process automation.

TIBCO BPM

Key Functions

The TIBCO Staffware Process Suite is providing functionality in five areas, key to BPM: user interface, process design/modeling, integration, process intelligence, and underlying technology. The suite integrates and leverages technologies from TIBCO's acquisition of Staffware, as well as TIBCO technologies that predated the Staffware acquisition. They provide capabilities for creating, monitoring, and managing business processes in an increasingly integrated combination, including the iProcess engine, process clients (AJAX-compliant rich Internet applications), BusinessWorks-ESB-based integration server and EMS message-oriented middleware, BusinessFactor technology for business activity monitoring, TIBCO Hawk and Administrator features for system management, and the iProcess Decisions rules engine. The products are already well integrated as a suite at runtime as of November 2005 — 15 months after the acquisition of Staffware (at least the BPM user cannot see the integration points).

The TIBCO Staffware Process Suite is providing functionality in five areas, key to BPM: user interface, process design/modeling, integration, process intelligence, and underlying technology.

Rightly so, TIBCO does not look at its BPM offering as these separate products but as the five clear functions mentioned above: user interface, process design/modeling, integration, process intelligence, and underlying technology.

Highlights of the capabilities supported in these five functional areas, especially features added since the Staffware acquisition are described next. Following that are challenges and opportunities faced by TIBCO and a summary of interviews with two TIBCO Staffware Process Suite users.

User Interface Options

As an example of being loosely linked to a technology stack, existing TIBCO Staffware Process Suite user interface options include an out-of-the-box thick, windows client, ASP and JSP clients, support for both .NET and Enterprise JavaBeans (providing what IDC calls "open choice") and the ability to embed BPM functionality into packaged applications. As of the last calendar quarter of 2005, TIBCO is providing a new browser-based client based on AJAX functionality (TIBCO acquired a rich Internet application company called General Interface in the fall of 2004). With that new client, functionality can be embedded into the portal as portlets (i.e., support for JSR 168), enabling role-based BPM. A feature called Formflow supports the design and execution of complex human interactions (e.g., multiple forms presented based on rules). In addition, these two capabilities illustrate the advantages of the Staffware acquisition: the JSR 168 work had begun at Staffware prior to the acquisition, and the Formflow functionality was originally part of another TIBCO product.

Process Functionality

Through a variety of products and third-party relationships with IDS Scheer and Corticon, TIBCO supports process definition, modeling, and real-time management of rules.

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TIBCO iProcess Modeler lets non-IT-trained business users model all process interactions encompassing people, systems, and rules. It supports workflow and STP with reusable fragments, prediction, on-the-fly modification, process documentation, and XPD L import/export. When and if professional developers need to get involved, TIBCO provides interaction between process definition, rules definition, and service definition functionality. These additional functions encompass a higher-level, strategic business modeling than a business analyst can typically support, and they address requirements that are less stringent than those provided by enterprise modeling tools such as IDS Scheer ARIS, but more stringent than a product such as Microsoft VISIO. TIBCO iProcess Modeler includes a rich client approach, multiple modeling schemes (e.g., flowcharts, swim lanes, notes, decomposition hierarchy, etc., and per-process organizational relationships). The functions are consistent with the Eclipse development environment and let companies maintain a relationship between IT-centric definition (services, integration, etc.) and role-centric definition (processes, rules, etc.).

Rules management is addressed through TIBCO iProcess Decisions, which provides an easy-to-use design environment for building rules. The design environment is based on a spreadsheet paradigm and provides support for key design features like ambiguity and consistency checks, conflict resolution, and testing. Rules can be associated with processes and then managed outside the process to provide maximum flexibility

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Integration

Given its heritage, integration is the strong point in the TIBCO BPM offering. TIBCO currently supports both outbound and inbound integration of the process flow. Development is done via BusinessWorks and the TIBCO Designer, with strong design time integration so iProcess Modeler users select and map to BusinessWorks services. The runtime utilizes the iProcess Engine, which invokes external system/service according to native plug-ins for database, Java, COM, SOAP over HTTP, XML over JMS, and other protocols. Inbound, the iProcess engine supports low-level APIs (.NET, EJB, C++) and high-level services, such as SOAP over HTTP, XML over JMS.

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Through its BusinessWorks heritage, TIBCO provides a comprehensive underlying integration platform based on a service-oriented and event-driven architecture, standards support designed to "future proof" investments, and support for multiple modes of operation (publish/subscribe process starters, unplanned events, request/reply, STP, error handling, transaction management, and so forth). An extensive adapter library supports HTTP, databases, files, CICS, SMTP, SOAP, Websphere MQ, JMS, JDBC, Java, SAP R/3, Siebel, Peoplesoft, Clarify, Ariba, SWIFT, FIX, GSPTA, Retek, Kenan OM, HL7, and over 150 adapters in all.

In February 2005, TIBCO enabled BusinessWorks and iProcess engine to talk to each other via Web services (SOAP over HTTP, XML over JMS). Later, TIBCO improved on this integration and now provides a strong design time and runtime integration between BusinessWorks and Staffware.

Process Intelligence

TIBCO's BPM process intelligence features are based on two products that once combined provide the foundation of intelligent process automation, IDC's vision for the next generation of BPM software:

TIBCO's BPM process intelligence features are based on the BusinessFactor product acquired from Praja.

- ☒ **TIBCO BusinessFactor.** Some of the underlying BusinessFactor technology was acquired by TIBCO with Praja. This product provides support for real-time monitoring of business processes, and is extendable to include data from outside the process (e.g., customer history from a data warehouse). Its architecture models business context, dynamically models activities such as rapid addition of activities and category taxonomies, declarative aggregations, scorecards, map sets, rollups/aggregations, visual indicators, summary capsules, and portal pages.
- ☒ **TIBCO iProcess Analytics.** This product provides rich historical analysis of process performance. It is an OLAP-based reporting tool that operates on a data mart, which can be refreshed on a regular basis. It provides support for management dashboards, alerts, ad hoc queries, and wizards.

TIBCO's iProcess engine also had some of the building blocks of intelligent process automation, including event publication. Much of this functionality is based on complex event processing; in later versions of the TIBCO Staffware Process Suite, CEP will likely become part of the entire product's functionality, not just the process intelligence part (see below).

Underlying Technology

Complex Event Processing

CEP has similarities to business activity monitoring (BAM) and data warehouse/analytics. However, the event, rather than data, is the catalyst for automating the process flow. To some extent BAM correlates similar events; CEP correlates unrelated events. BPM is a concept that can really take advantage of this view because BPM is the primary remediation methodology for identified "at risk" situations. Although it is already delivered in TIBCO's BAM and event-processing offerings, TIBCO will build CEP into all of its BPM functionality.

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Other Underlying TIBCO Technology

A variety of other separate — and separately marketed — TIBCO developments have a major impact on the BPM offering:

- ☒ TIBCO Hawk provides a common framework for visibility and monitoring at the system level.
- ☒ TIBCO supports BPEL, XPD, etc.

- ☒ TIBCO Enterprise Message Service provides a scalable messaging layer.
- ☒ TIBCO Portal provides a user interaction framework

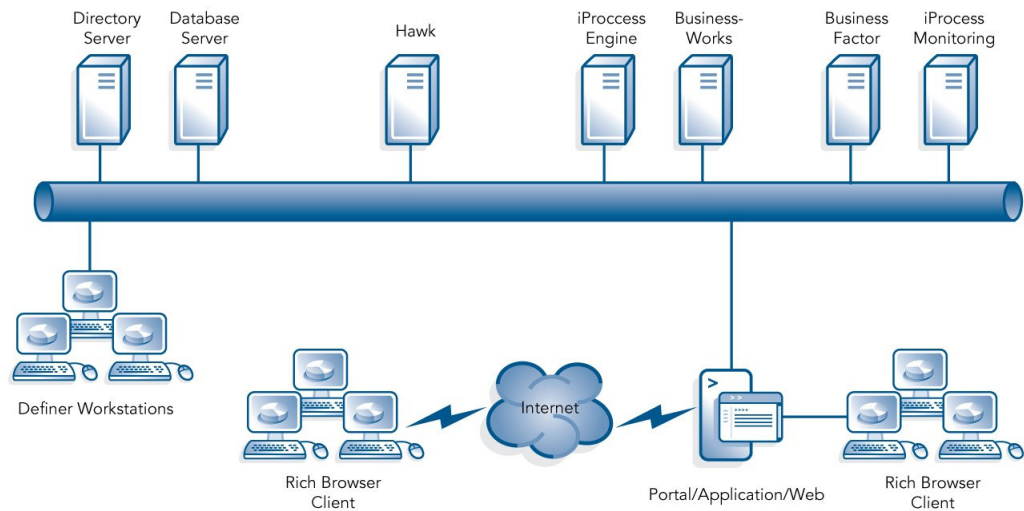
All of this technology is what allows TIBCO to support BPM across the spectrum of human flows, form flows, integration flows, etc. and across resource management, advanced work distribution, work list management, advanced case management, service-level management, and event management. Figure 2 illustrates the Staffware/TIBCO BPM architecture.

Challenges/Opportunities

As mentioned above, TIBCO does not look at its BPM offering as separate products but as the five clear functions they provide based on a services-oriented architecture (SOA). Providing more design-time integration than generally available as of November 2005 — as well as removing some of the hidden runtime integration points to improve performance — are the major challenges TIBCO faces going forward. These challenges will be easier to overcome because of the time TIBCO has spent building an underlying SOA platform. These challenges flipped around are also TIBCO's major opportunity because if TIBCO completes these software development projects in a timely manner, they will become one of the first companies in IDC's opinion to deliver on the promise of intelligent process automation.

FIGURE 2

TIBCO Staffware BPM Suite Architecture



Source: IDC, 2005; © 2002 TIBCO Software Inc.

TIBCO Staffware Process Suite is also one of the first products in the market to deliver on the industry specificity that IDC thinks is critical to market success and which IDC knows is a must in the industries targeted. For TIBCO, three industry-specific BPM offerings are already available: Financial Services (including Insurance), Government/Public Sector, and Telecommunications. One challenge TIBCO faces in terms of improving its industry penetration is to go deep rather than wide; there is an inexorable tendency among all software developers to add industries; it may be counterintuitive, but the real opportunity is to become more specific in an already successful industry (county- or provincial government-specific features in the Public Sector product for example, or community banking support added to the Financial Services offering). Another opportunity for TIBCO, in particular, because it already understands the importance of industry-domain expertise is to parlay two or more in some way. For example, take the knowledge of utility automation gained through the telecommunications product and target utilities owned by public sector — rather than private — enterprises.

CASE STUDIES

TIBCO BPM In Action at Allianz Ireland

Allianz is one of Ireland's largest multiline general insurance companies, with a turnover of €700.1 million in 2004. It employs over 900 people and boasts an all-island Irish heritage that traces back to the early twentieth century. As part of the Allianz Group since 1998, Allianz Ireland combines a close ear to the local market with access to the risk and product knowledge of a world leader (Allianz Group has offices in more than 70 countries and over 162,000 employees).

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Allianz Ireland specializes in property and casualty coverage for personal needs, businesses, and churches and schools in both the Republic of Ireland and in Northern Ireland. This includes coverage of home, auto, pets, and — not surprisingly in this sea-centric marketing area — boats. As a result, the firm offers more options than insurers in marketing areas with 10 or more times its population base yet needs to provide the same efficient and cost-effective IT support, including BPM technology, as those insurers. In addition, Allianz Ireland's insurance services are sold indirectly via independent brokers with a choice of other insurers' lines, a choice the independent broker will often make based on how easy the insurer is to do business with.

Those characteristics (a market bounded figuratively and literally, a wide product/service array, and indirect sales channels) summarize the ongoing business and technical challenge faced by Allianz Ireland's IT department. At the infrastructure-software level, the Allianz IT group is a mixed shop with what we describe above as a loosely coupled architecture, based on the philosophical desire and business requirement to be able to make application and integration decisions with as much flexibility as possible. That lineup includes IBM iSeries production systems (e.g., Oracle/J.D. Edwards back-office software, the Insure 90 policy administration application of Software Solutions Partners, and Content Manager for image handling) and Microsoft technology to support collaboration and front-office needs. The Allianz IT group outsources some application development via Wipro, further exhibiting an IT approach that mirrors their corporate culture of over a century of local knowledge and

At the infrastructure-software level, the Allianz IT group is a mixed shop with what we describe above as a loosely coupled architecture.

service performance with the ability to look anywhere in the world for the IT resources they need. (Of course, Allianz Ireland has considerable local talent to draw upon: Ireland has one of the highest percentages of software developers in the world as a percentage of total population — see the *IDC Worldwide Professional Developers Model*, IDC #34550, December 2005). So in looking at meeting its emerging BPM software requirements in 2000, Allianz Ireland had the infrastructure and capability to go "open choice," as well as the skill set pool to choose between BPM point products or BPM suites.

Allianz Ireland chose the Staffware Process Suite and its iProcess engine, now part of the increasingly integrated TIBCO BPM offering described above. Allianz sees BPM as falling in the category of customer facing because its sales channel is through independents, but an ongoing challenge is to make those independents feel as connected to and holistically a part of Allianz Ireland. That is especially true in the Internet age because the independent brokers can jump to another insurer with the click of the mouse. Part of the Allianz Ireland BPM strategy was to build the independent broker right into the internal flow. When Allianz started looking for an upgrade to its then image-centric (vs. process-centric) workflow capabilities in 2000, it realized it had to build a system that supported multistep process capability and had the ability to work on the Web. The resulting Staffware-based solution:

- ☒ **Initially supported the independent broker in both low-end commercial rating as well as in insuring individuals.** Allowing workflow support for insuring smaller businesses (and churches and schools) that buy with the same kind of cost consciousness as individuals gives Allianz Ireland brokers an efficiency advantage not needed when insuring large businesses (and not always available from Allianz competitors).

- ☒ **Eventually externalized Allianz Ireland business priorities.** Moving the workflow support to other independent third parties in the insurance services supply chain (e.g., automobile dealers, specialized claims handlers, mechanics, mortgage brokers, lawyers for personal injury), balanced workloads wherever the process exists in the business cycle.

Another factor that Allianz Ireland had to plan for was the fact that it and its independent brokers are heavily and increasingly regulated. They face provisions of Irish, UK (for the Northern Irish division), European Union law, and even Sarbanes-Oxley (because the parent company does business in the United States).

The TIBCO Staffware Process Suite, originally deployed in early 2001 and upgraded most recently to version 10.3 in late 2005, not only delivered on these objectives but also provided a very rapid ROI to Allianz Ireland as well through each release cycle. At initial deployment, the TIBCO BPM software was up and running in two months, and paid for itself in six. The Staffware Process Suite capability to integrate to the imaging system, albeit with some custom work, was important as well as the ability to work with the wide variety of email systems that all the many third parties use. Showing real open choice characteristics, although they chose a Windows-based BPM solution, Allianz Ireland's inhouse and outsourced development tool strategy is moving from Visual Basic to Java/Ajax.

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Today TIBCO BPM at Allianz Ireland is integrating most of the disparate software described above among over 600 employees and independent Allianz Ireland associates as if they were all part of one entity. Allianz Ireland has used TIBCO BPM and its other IT resources to deliver on many of the promises of B2B that were simply "press release propaganda" (and analyst forecast) when Allianz began their deployment in 2001.

Relative to a growing trend (similar to what we see as a major market driver for BPM deployment software), the Allianz Ireland IT group wants to add integration with its electronic record and document management software to the current integration with Policy Administration software. In Allianz Ireland's opinion, given its need for flexibility, BPM packaged with the application is not an option. Allianz is also looking at ways to become more Web services-centric in its BPM, building capabilities that its third parties will "subscribe to" as needed rather than have to have the functionality pushed out to them. Such changes will have a big impact on damage claims processing turnaround time, which is good for reinsurers as well as for consumers, and is thereby another way Allianz Ireland IT can benefit the insurance services supply chain at both ends. Although it already has a Web site for consumers, Allianz Ireland will also move in the future to contracting business directly with consumers.

TIBCO BPM In Action at Singtel Optus

Optus is one of Australia's largest telecommunications services providers, supporting over 6,000,000 commercial and consumer accounts across the breadth of the country as of November 1, 2005, and with revenue of almost A\$7 billion for the 12 months ending March 31, 2005. Employment has grown to over 9,000 people from a standing start after deregulation of the Australian telecom market in the early 1990s. (Singtel Optus [Optus] is part of Singtel, based in Singapore, which has offices throughout Asia). As a result of its rapid growth in a booming market, Optus in Australia sometimes feels as if its business processes, which are aimed at getting to market quickly, may not be optimized for efficiency and possibly effectiveness. This can, if not managed, translate to lost profit because there is a financial penalty if services are not switched quickly and with only a minimal amount of work for the "losing provider."

As a result of its rapid growth in a booming market, Optus in Australia sometimes feels as if it has as many business processes as it has services offerings.

As a result, Optus needed efficient and cost-effective IT support, including BPM technology, specifically to handle a complex 52-step process, termed local number portability. The process set not only involves customers and partners such as technicians but — unique to my research experience — also involves competitors that actually benefit if the process is not executed smoothly. In addition, Optus wants to take advantage of smoothing the process flow by also prioritizing and improving many of the other processes set up during its rapid growth over the last decade. It is important to get past practices working well (or changed) because Optus is now entering a phase of growth in 3G and broadband networks while adding a range of innovative data and content products over their 2.5G and 3G networks. Getting the business process right the first time is now crucial; the flexibility of going around a second time that is OK for a smaller enterprise will not be allowed; like telecom providers everywhere, landline minutes are down and the whole dynamics of the market are changing.

Optus Business is the business group within Optus that took on the local number portability issue. Optus Business is one of four customer-facing divisions, along with wholesale and satellite, consumer, and small and medium enterprise. Within the Business unit, the challenge fell to the Business Operations and Delivery group. In addition to turning market requirements into technical specifications and delivered services, the business operations group is constantly looking for strategic process improvement opportunities such as the local number portability process set, where even a 10% more efficient flow can translate into millions of dollars hitting the bottom line.

When they began the improvement process, the flow was handled by faxes, phone calls, email, Microsoft Project, and spreadsheets (with a little side challenge that the spreadsheets ran on Macintosh workstations). Today, the Staffware Process Suite runs on a Windows 2003 Server, with Apache Tomcat, Microsoft SQL Server, and Microsoft Exchange Server. Decisions are jointly IT management and the line-of-business group.

In terms of the options outlined in the decision tree above, Optus' local number affordability process is a point-product opportunity for which Optus has the good sense to choose what is now becoming a suite. Because of TIBCO BPM's modeling and runtime capabilities, Optus asked for and received a proof of concept deployment in just 6 weeks for this complex business process set that looks at regulatory issues, different business units in Optus, independent contractors, as well as ties to other carriers. After Optus signed an enterprise license in August 2004, TIBCO delivered the entire operation in six months. Both TIBCO professional services and third parties (for the actual analysis, documentation, etc.) were involved. As hinted at above, and as another example of being loosely linked to the technology stack, when TIBCO found its product needed to interoperate with an older version of Macintosh than it had previously seen, it came up with the solution quickly and still delivered on time.

Optus' local number affordability process is a point-product opportunity for which Optus has the good sense to choose what is now becoming a suite.

Up and running now for a year, Optus not only found that it had reduced time to "port" local numbers by over 30%, which was the objective but believes it will see a 60% improvement. The stated operating procedure of the Optus Business Operations and Delivery team when it comes to business process sets is to "internalize them, optimize them, and then manage them." As an example of optimization and management, the group feels that in addition to helping reduce the risk that Optus will be penalized if it gets the process of porting wrong (the Staffware Process Suite has eliminated that as an issue), it is likely that the new process will let Optus accept more orders. It is too early in the deployment to quantify, but the ease of local number portability change might positively drive business.

Optus not only found that it had reduced time to "port" local numbers 30%, which was the objective but feels it will see a 60% improvement.

In addition, the product development group quickly concluded that it needed to make its own product development operation more efficient. That's where the advantage of choosing a suite over a point product paid off as it already had the tool on hand to implement what it calls its process documentation and analysis business process set.

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