

TECHNOLOGY AUDIT

AgilePoint BPM Suite









Ascentn




BUTLER GROUP VIEW

ABSTRACT

Ascentn's AgilePoint BPM Suite is a .NET-based, model-driven, Business Process Management (BPM) solution, aimed at building SOA-aligned, highly adaptive process-based applications through composition of process-enabled IT assets abstracted from and across existing applications, and messaging and productivity solutions, with a focus on leveraging common Microsoft technologies such as SharePoint servers, SharePoint services, BizTalk, InfoPath, Visual Studio, and the .NET platform. The suite comprises a Visio-based process modeller which is, in fact, also an integrated composition environment for process-based SOA composition a Visual Studio-based development environment for creating encapsulated reusable process elements in XML enabled by metadata driven IT asset abstraction framework, and a XML-based process execution engine. AgilePoint focuses on increased visibility and manageability into processes, both at design time and at run time, and on business user-driven process formulation and management.

KEY FINDINGS

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|  Provides a Visio-based modeller and ships with a range of configurable processes. |  Product design ensures great process visibility without resource overheads. |
|  Resume support allows process modifications on the fly. |  Solution is 100% .NET based, leverages existing Microsoft technologies. |
|  For complex business rules a third-party rules engine is required. |  Third-party BPM interoperability is currently not supported. |
|  Ships with 100 reusable process and workflow elements. |  Is a member of Microsoft's Business Process Alliance. |

Key:  Product Strength  Product Weakness  Point of Information

LOOK AHEAD

Future releases of the product will provide enhanced support of full lifecycle empowerment for business user through enabling and simplifying integrated process-based composition of expanded set of process-enabled IT assets, including user interface, business rules, services, integration, dynamic system and manual activities, etc.

FUNCTIONALITY

Product Analysis

Ascentn's AgilePoint BPM Suite is a .NET-based, model-driven, Business Process Management (BPM) solution, aimed at building Service Oriented Architecture (SOA)-aligned, highly adaptive process-based applications through composition of process-enabled IT assets abstracted from and across existing applications and messaging and productivity solutions, with a focus on leveraging common Microsoft technologies such as SharePoint servers, SharePoint services, BizTalk, InfoPath, Visual Studio, and the .NET platform. The suite comprises a Visio-based process modeller which is, in fact, also an integrated composition environment for process-based SOA composition; a Visual Studio-based development environment for creating encapsulated reusable process elements in XML, enabled by metadata-driven IT asset abstraction framework; and a XML-based process execution engine.

Microsoft's entry into the BPM market is reminiscent of the Redmond giant's entry into quite a few markets: a relatively simple and low-priced solution aimed at broadening the reach of the category with close linkages with other Microsoft technologies and solutions, an ecosystem of Independent Software Vendors (ISVs) that individually enhance niche areas of the portfolio, a rapid iterative strategy that sometimes yields market leading solutions. In the BPM market, Microsoft's entry has been aided by members of the BPA alliance who provide advanced functionality such as SOA runtime governance, Business Rules Management System (BRMS), process optimisation, simulation and performance management, process analytics, modelling, Business rules engines, and Business Logic authoring environments.

In this regard, Ascentn AgilePoint has taken the potential of a Microsoft-based BPM to a new level by delivering a metadata framework enabled model-driven BPMS. With such architecture, Ascentn's vision is to pioneer the delivery of a Microsoft-based BPMS that can:

- Go hand-in-hand with SOA and realise the true value proposition of SOA.
- Extend business user empowerment beyond modelling and simulation to include full-lifecycle, iterative deployment for improvement validation without burdening IT through the creation of process-based composite applications with the user experience of assembling a process diagram.
- Enable businesses to expand the scope of process-management initiative to include not only structured processes but also the increasingly common dynamic, ad hoc processes where each instance of execution could change depending on external conditions.
- Enable businesses to derive differentiated competitiveness through being able to manage exceptions and respond to compliance and/or business requirement changes of running processes in real time through dynamic process adaptation capabilities such as in-flight process migration, dynamic roll-back, dynamic re-route, dynamic partial re-work, etc.

The AgilePoint BPM Suite provides end-to-end BPM with designing/modelling, deployment, management, monitoring, and reporting capabilities. The solution helps automate all the human-human, human-system, and system-system interactions in a process, with a good range of common workflow and process elements provided out of the box in a Visio-based modelling solution, which can be used to model and deploy XML-based business processes that are directly executable.

Around 100 such workflow and process elements are available out of the box. Processes can be built by dragging and dropping process elements, i.e. abstracted and process-enabled IT assets and SOA services, onto the design palette and connect them using Visio connectors, which creates a process-based composite application. Processes can be modified on the fly, without having to making changes in the modelling environment, redeploying the change, and restarting the process. Objects developed using the .NET-based developer can be saved as Visio process elements.

The AgilePoint BPM Suite also offers integrated Business Activity Monitoring (BAM), in-flight process analytics and adaptation/optimisation capabilities. The process execution and implementation data is held in a database, and can be retrieved to deliver historic analysis and current process monitoring through the management and reporting console. Some pre-defined packaged reports are available and custom reports can be generated if required. Drill down and e-mail alerts are supported. Overall, Butler Group believes that the solution provides good reporting facilities and analytics, but third-party BI products are recommended for advanced capabilities.

The solution integrates with legacy systems using database connections, Web services, and Enterprise Application Integration (EAI) solutions. The solution provides a rules engine out of the box which is suitable for small-scale requirements; for more advanced functionality there would be a requirement for a third-party Business Rules Management System.

Interoperability with other similar products, such as third-party modelling solutions is an area that is not currently addressed, but Ascentn reports that interoperability capabilities will be enhanced in future releases scheduled in early 2009. The execution engine is well designed to operate in distributed enterprise environments, offers good scalability and fault tolerance capabilities, and the process models are directly executed by it.

Product Operation

AgilePoint is a 100% .NET platform oriented BPM engine which is robust, secure, scalable, and manageable, with XML and Web services forming the core of the solution architecture. It provides a metadata driven layered architecture which is 3-tiered to start with and can be scaled to n-tiers.

Out of the box, the solution provides users with a data layer which is responsible for data storage and retrieval, it connects to MS SQL Server. When adopted initially by a non-Microsoft-centric organisation as the integrated process-based SOA composition environment, AgilePoint also lets organisations leverage their existing IBM DB2, and Oracle databases. When used with non-MS SQL databases, some out of the box capabilities may not be available such as some pre-built reporting templates that are built upon MS SQL Reporting Services. The execution engine resides between the data layer and the Web services layer. The Web services layer acts as the mediator between the other modules of the AgilePoint BPM Suite and the process execution engine. The Presentation layer is at the top of the stack and provides reporting, managing, detailed logging, and control facilities.

The architecture allows for different programming environments and platforms across the enterprise, and each layer isolates changes made at that level from the layers above and below it leading to easy technology integration. This is further facilitated by AgilePoint Envision's ability to serve as an integrated process-based SOA composition environment.

It also enables process models to serve as direct executables with no need for separate compilation. The SOA-led approach is evident in the AgilePoint design. The solution provides business-centric SOA as well by incorporating various reusable functional components – around 100 such components built by Ascentn and its partners are provided out of the box – and allows for further creation of such reusable components through its developer environment. The processes in AgilePoint are visible; process evolution and adaptation capabilities exist at design time as well as run time.

The AgilePoint BPM Suite consists of the following modules:

AgilePoint Envision: The module is a Visio add-on which allows the business users to design and model processes. A user can create, modify, and deploy process models using BPM-enabled Visio shapes and connectors. Business logic can be built into the graphic process model directly. Many useful process and workflow elements are available as BPM-enabled Visio shapes out of the box, which can be dragged and dropped on to the design palette and further configured to suit custom needs. The process model once built can be stored in Visio format, allowing enterprise-wide collaboration. Process definitions are stored as metadata and interpreted in XML format. The module leverages Visio's wide adoption to reduce the learning curve for most business users. AgilePoint's n-tiered, SOA-aligned model-driven architecture enables AgilePoint Envision also to serve as a process-based integrated composition environment that dramatically increases the speed, manageability and business-user empowerment of BPM to deliver business agility.

AgilePoint Developer: This is a Microsoft Visual Studio based environment for creating reusable functional components. Custom BPM-enabled Visio shapes can be developed, which can then be exported for use in the Envision module. The .NET-based IT asset abstraction framework allows developers already proficient with the platform to develop AgileParts (BPM enabled Visio shapes) in the language of their choice with no learning curve.

AgilePoint Server: An XML-based process engine which executes the process models created using Envision. The module provides for detailed event-based logging facilities in real time, allowing users to monitor their processes in real time. Using a session-based approach it supports in-flight changes made to a process, which can then be resubmitted to the server without having to restart it. Process execution resumes from the last occurred event, unless a restarting point is specified. The AgilePoint Server can be deployed in enterprise environments. It ensures high availability of the solution and provides load-balancing capabilities.

AgilePoint Enterprise Manager: The Enterprise Manager is a Web-based application which provides a dashboard for real-time process monitoring, management and collaboration across the enterprise, a role-based rules engine for secure access, audit trails for compliance and governance, dynamic process adaptation capabilities which allow for expansion or deletion of events from an n-tier process model, reporting capabilities, and strong version control features.

The AgilePoint BPM engine supports distributed enterprise operating environments typically running on single server, server clusters, and NLB server farms, and dynamic multithreading with the maximum number of threads being a configurable parameter. The solution ships with a Clustering Server Manager to effectively manage real-world enterprise deployments. This effectively takes care of system availability concerns of end-user organisations. Lateral scalability can be achieved by reconfiguring the server environment from single server to server clusters to NLB server farms. Client applications can communicate with the AgilePoint BPM engine via Web services (HTTP/SOAP), messaging (JMS/MSMQ), WCF, and Remoting. The AgilePoint process engine is fully WfMC (Workflow Management Coalition) compliant with XPD and ingrained XML support.

Product Emphasis

The solution allows for largely business user-driven, code-free development and deployment of the process models. The emphasis on agility is evident through the ability to change and redeploy running processes on the fly enabling business users to respond to changes as they happen. It leverages the existing Microsoft technologies such as Visio, BizTalk, SharePoint, and InfoPath and user skill sets to reduce the cost of change. The solution is SOA-enabled and ships with many reusable process and workflow components, with the option of developing more such components as the need arises.

DEPLOYMENT

Ascentn's AgilePoint BPM Server is a 100% Microsoft .NET-based application and requires Microsoft Windows 2003 Server or Windows 2008 Server for deployment. However, due to the combination of its SOA/Web Service and metadata framework model-driven architecture, many J2EE-centric organisations have adopted AgilePoint as its integrated process-based SOA composition environment which, in fact, presents an effective migration path for the J2EE-centric organisations to adopt Microsoft .NET and technologies. Today about 40% of Ascentn's existing clients have J2EE environments. Other software requirements include a relational database MS SQL Server 2000 (SP3a) / MS SQL Server 2005, or MS SQL Server 2008. The database can be deployed either locally or on a remote network server in the same domain. Local software requirements include IIS 6.0, Microsoft Internet Explorer 6.0 or above, Microsoft .NET Framework 2.0/3.0 and Microsoft Data Access Component 2.6 or higher.

The CSM module can be also deployed on MS Windows 2000 Server, Windows XP professional and Windows Vista. The Enterprise Manager module can be deployed on MS Windows 2003 or 2008 Server (32/64 bit) and also requires IIS 6.0, .NET Framework 2.0/3.0 and MS Internet Explorer 6.0 or higher.

The Envision module is a Visio extension, which can also be deployed on MS Vista in addition to the OS platforms mentioned above. It also requires the MS .NET Framework 2.0/3.0 to be locally installed along with MS Visio 2003 or 2007. The Server module can be either deployed locally or on a remote server.

The developer module can be deployed on all the operating systems mentioned above, and it requires MS Visual Studio .NET in addition to the above mentioned requirements. Envision and Server modules can be deployed locally or on a remote server.

The entire suite can be deployed in a modular fashion, and other modules can be added as required.

Deployment will typically require a project manager; a process analyst; a subject matter expert; developers with .NET/Web Services/XML expertise for custom AgileParts development; a system administrator; a change control coordinator; and a sponsor. Ascentn recommends that deployment teams have a good mix of business and IT personnel. After the implementation stage, a dedicated system administrator would be required and all day-to-day operations can be handled by the business users themselves. IT involvement will be required for new reusable AgilePart development.

A typical deployment could take hours, days, or weeks for a single business process depending on the customer requirements. The average deployment time can be segmented into:

- Identifying business processes and needs: 50%.

- Designing the business process: 20%.
- Technical implementation: 30%.

Identifying the business process and needs involves defining dashboards, front end, Key Performance Indicators (KPIs), information to be used, and integration needs.

Training is mainly divided into three types:

- AgilePoint Starter: five days.
- Advanced Developer: four days.
- System Admin: two days.

Additionally technical manuals are available as PDF documents or online. Other sources of information include knowledge base and forums. Computer-Based Training (CBT) mode of training is not supported as of now.

Support is provided through different channels based on the complexity levels. First level support is provided by Ascentn partners. Second and third level support is provided by Ascentn, based on the region (US, EMEA, APAC).

Legacy integration is mainly achieved through direct database connections, Web services and Enterprise Application Integration (EAI) tools such as BizTalk server, MS-MQ, IBM MQ series.

Potential areas of risk include a less-than-optimal process for identification of business needs and processes, lack of management support, trying to design and optimise the process at the same time, and lack of a BPM-oriented approach.

PRODUCT STRATEGY

The target market for Ascentn is horizontal and spans several key sectors. The company operates in the US, the EMEA, and APAC regions, with the US market accounting for 50% of its revenues and EMEA and APAC contributing 30% and 20% respectively.

Ascentn's market strategy relies heavily on partners (70% of the deals) for end-to-end delivery of projects at client side. Ascentn sells to enterprise customers directly and engages the company's partners for project delivery. For the Small to Medium-sized Enterprise (SME) segment, partners are responsible for both sales and delivery. Ascentn's key business partners include EDS, Fujitsu Consulting, VIT, Infosys, and Systemation.

In the large-enterprise segment (which accounts for 40% of Ascentn's revenues, with SMEs accounting for the remaining), the company typically targets Global 2000 and mid-end organisations. A typical AgilePoint deployment scenario would be 50,000+ users distributed globally for large enterprises, 1,000+ users for the mid-size, and 50+ users in a small company or at department level in a small to medium-sized enterprise.

Major technology partners of Ascentn include Microsoft, and other OEM partners such as Schlumberger, ADAM, NowDocs, Emerald Coast Software, and Ex Arte.

AgilePoint's pricing models are based on the number of process templates, dynamic user sessions, and CPUs. Average licensing costs for small to medium enterprises are in the range of €35,000 to €65,000, whereas for large enterprises the licensing cost is typically between €100,000 and €300,000. Annual maintenance fees are around 20% of the purchase cost including support and access to minor/major product upgrades.

The company plans to have a major release every 12 to 15 months, with minor releases every six to eight months, and patches as per requirement.

Future plans for Ascentn include enabling third-party BPM integration through complete support for XPD 2.1 and BPMN standards, extended reporting facilities, data population and data tracking, and one-click process deployment in their Q4 2008 and early 2009 releases. In Butler Group's opinion this will add the missing link for Ascentn's AgilePoint BPM Suite to be truly considered as an enterprise-class BPM solution.

Microsoft Corporation and the BPA members, by using the technologies and associated skill sets already available with many organisations, have drastically reduced the cost of change for potential BPM practitioners. In Butler Group's opinion, the AgilePoint solution, together with Microsoft's and other BPA members' technology, could spearhead the movement towards process-driven applications targeting niche processes in sectors and sub-sectors – effectively expanding the scope of BPM solutions. These process applications would however retain the flexibility that a process layer abstracted from underlying systems afford. Even outside the BPA alliance, .NET-based solutions are very effectively using Microsoft technologies such as SharePoint, InfoPath, and Office to create sector- and process-specific applications, integrating legacy vertical applications, databases, and e-mail, among others. For a relatively new company, Ascentn has acquired an impressive client base totalling over 230 companies and an equally impressive partner list, all the while maintaining impressive growth and profitability figures. Overall, in Butler Group's opinion, Ascentn has found the right combination of strategic focus, compelling set of features, and platform and ecosystem choice: a niche that is likely to grow rapidly.

COMPANY PROFILE

Ascentn was founded in early 2003 by IT professionals with over 20 years of workflow automation experience with emphasis in multi-tiered, framework-enabled process manageability and adaptability. The founders had worked with the J2EE platform for the most part, but decided to switch to the Microsoft .NET platform to deliver a new generation of model-driven BPMS with mainstream price performance.

Ascentn is a privately held company, which provides end-to-end BPM at affordable rates for SMEs as well as large enterprises. The company is headquartered in Mountain View, California, US, and has offices in Belgium and Spain, in the EMEA region, and in Japan, China, and Taiwan in the APAC region.

The company has over 230 customers spread across the world and employs over 65 people across the globe, with around 50% of employees dedicated to research and development. Around 45% of Ascentn's employees are based in the USA along with 20% in EMEA, and 35% in APAC. Ascentn plans to double the number of employees dedicated to service and support in the next 12 months.

Ascentn's customers include Chinatrust Bank, Kingston, UMC, Elbit Systems, CDC (Centre for Disease Control), Faegre & Benson, DaisyBrand, and Vandemoortele among others.

SUMMARY

In terms of the feature set, Agilepoint BPMS represents the best of the relatively new crop of .NET-based BPM solutions that extensively use Microsoft technology to support processes that involve crucial human interfacing components. Also, when used in conjunction with third-party business rules management and simulation systems, the solution can be used to support large-scale complex processes with substantial system-to-system components with stringent performance parameters. The planned support for third-party BPM solutions and deeper partnerships with fellow BPA members could extend AgilePoint to most BPM use cases, environments, and levels of BPM maturity. Overall, a competent solution that is well aligned with the requirements of large enterprises and mid-sized companies that require a flexible inexpensive solution to support business processes that span multiple applications and governance silos.

Table 1: Contact Details	
<p>Ascentn 1916C Old Middlefield Way Mountain View, CA 94043 USA Tel: +1 (650) 968 6789 Fax: +1 (650) 968 6785 www.Ascentn.com</p>	<p>Ascentn EMEA Meersbloem Melden 46 9700 Oudenaarde Belgium Tel: +32 497 42 76 13</p>
Source: Ascentn	DATAMONITOR

Headquarters

Europa House,
184 Ferensway,
Hull, East Yorkshire,
HU1 3UT, UK
Tel: +44 (0)1482 586149
Fax: +44 (0)1482 323577

Butler Direct Pty Ltd.

Level 46, Citigroup Building,
2 Park Street, Sydney,
NSW, 2000,
Australia
Tel: + 61 (02) 8705 6960
Fax: + 61 (02) 8705 6961

Butler Group

245 Fifth Avenue,
4th Floor, New York,
NY 10016,
USA
Tel: +1 212 652 5302
Fax: +1 212 202 4684

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