



BPM Software Report: Adeptia BPM Server

By [Lou DiToro](#), February 22, 2008

<http://www.bpmenterprise.com/content/c070917a.asp>

Integration is the Achilles' heel of business process management (BPM). If you can't integrate systems, you can't transfer data. If you can't transfer data, you can't create a business process – no matter how powerful your software, or how many bells and whistles it has. Integration is especially critical in situations in which disparate systems abound because it helps drive efficiencies; without integration, your BPM project will never realize its full potential. Yet, few BPM solutions focus on integration as a key feature. Many offerings expect the data integration to happen with the help of middle-ware, software that resides between the process and the data sources that manipulates the data in a way that allows it to be used by the various applications.

[Adeptia](#) BPM Server features integration as a strength. With a slew of wizards and pre-built adapters (and a custom plug-in adapter for legacy systems), BPM Server integrates data from departmental information stores, enterprise applications and existing business processes. It allows users to design, manage and optimize processes without excessive coding and then leverage the Internet to extend processes across departments and organizations. At a starting price of \$30,000, version 4.6 is software worthy of consideration.

Integration Is the Key

BPM Server includes both an integration component and a BPM component. The integration component includes four modules that transform and transfer information and ensure data delivery and integrity – data transport, data mapping, data transformation and Web services. (More on these later.) While each module sports intriguing features, users will probably find the data mapping module most useful. This graphical tool lets the user specify business rules and mapping rules then auto-generates data transformation code behind the scenes, eliminating the need to have programmers write custom code.

The solution's BPM component let users design, model, manage and optimize business processes. Among its key features are a wizard-driven interface for configuring complex business processes, a modular architecture that provides extensibility and flexibility, extensive scalability, support for industry specific standards, and a simplified deployment model. This component lets users deploy business solutions based on service oriented architecture for automated processes, as well as create business tasks for special situations, orchestrate them and deploy them using real-time triggers. The BPM component includes reporting tools that let the user view runtime statistics, to help identify process bottlenecks.

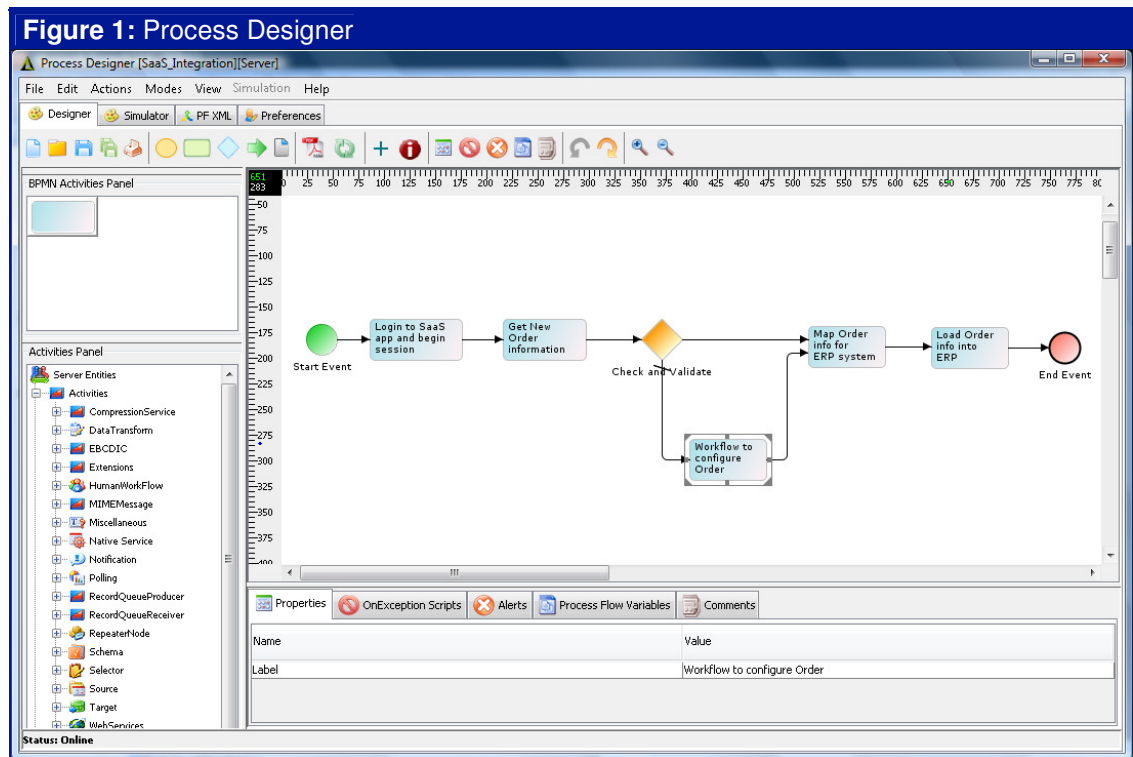
Key Components of BPM Server

Delivered and deployed as a single package (which is a big help in the integration challenge), BPM Server includes Process Designer, Process Engine and Workflow modules, in addition to the integration modules. License pricing of BPM Server is based on a combination of variables: the number of CPUs, named users and duration of license. The following is a rundown on each module.



Process Designer

The Process Designer provides an environment for users to design and maintain their process flows. Here's where business people and IT people meet to map out business tasks and figure out how those activities work together to create the business process. The Designer features BPMN standards-based notation, a graphical user interface and drag-and-drop capabilities for creating processes, documenting business rules and identifying quick-and-dirty optimization areas. The module also lets users simulate processes using actual data to identify areas for improvement and allows users to work offline. When the user reconnects to the server, Process Designer automatically "synchronizes" with BPM Server.



Process Engine

The Process Engine is a runtime engine that executes the processes designed through the Process Designer. It supports all the complexities of processes, including decision nodes, sub-processes, exception handling, forks, joins and loops. An automated transaction recovery feature lets users recover from a process that was interrupted, whether by software, hardware or network failure.

Workflow Manager

The Workflow Manager provides support for processes that include human-performed tasks. A Task Manager, in which business users can view pending tasks, serves as an electronic "to do" list. When an action is required, an email alerts a user and the Task Manager. Actions may



involve manually resolving exceptions, reviewing business data to make decisions, and downloading or uploading documents from a repository or content management system. The user interacts with the process flow via a Web interface to complete a task. When it's done, process flow execution eliminates it from the Task Manager and moves to the next activity in the sequence.

Data Transport Services

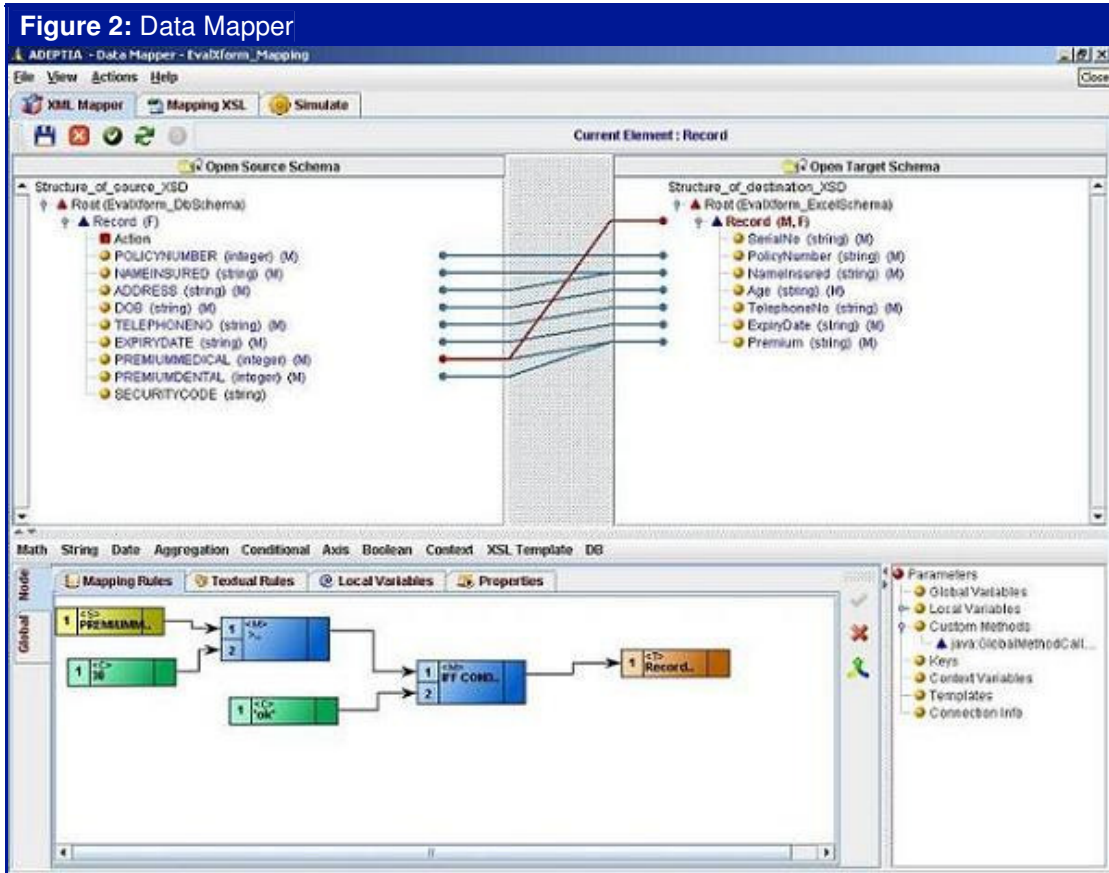
This module manages end-to-end data delivery supporting the Internet standards you'd expect: HTTP/S, FTP, SMTP and POP3. This is where process flow meshes with other business applications or databases holding information about customers, suppliers and other data. It can also reach out of the organization, across the firewall, to push and pull data from partner applications.

Built-in adapters allow connection to ASCII flat files, Microsoft Excel, XML and EDI. Dozens of optional adapters allow for accessing data from specific legacy databases.

Data Transformation Services

This module includes two key components:

1. **Schema Designer:** The Schema Designer is a wizard-driven Web interface that allows users to design and manage data formats and specify metadata for all commonly used file formats and relational databases. That definition can encompass data field element names, attributes and field types as well as the hierarchical record structure. Once a schema has been defined, the Schema Parser acts as a runtime engine to allow the automatic processing of data messages and file formats based on those pre-built definitions. Schemas can be saved and used in multiple processes.
2. **Data Mapper:** The Data Mapper is a visual mapping tool that lets users specify source and target schemas, selecting data fields to map between the two. Users can set up business rules using simple language. Once they're defined, a Mapping Engine applies them to the parsed data to create transformation output. The Mapping Engine also auto-generates data transformation code, eliminating the need for somebody to write code. The Data Mapper contains built-in libraries of math, string, aggregate, conditional and Boolean functions. It also provides support for testing a finished map before deployment.



Web Services

Adeptia BPM Server supports Web services, including the ability to use external Web services as a flow activity. Process flow can be triggered by, and exposed as, Web services using a Publish-WS feature. WSDL is automatically generated, which is needed for the client program to invoke the Web service.

Application Administration

Because its user interface is Web-based and its back-end depository lets users save and share rules, activities and processes, the BPM program engenders a collaborative environment that lets users interact with each other in order to document, design and deploy business processes. A "system administrator" provides full access to the whole application; a "group administrator" provides access only to a group, such as a department or external partner. The system and process flow-monitoring functionality consolidates views of server resources, users logged in and running processes, while the Process Engine console enables users to view deployed processes and monitor them.

Reporting and Optimization

Adeptia BPM Server includes a wizard-driven dashboard and reporting engine. It archives all logs and runtime process data in a database. The information features statistics of every executed



instance of a process flow including data pertaining to when the process flow started, when it ended and if it ran successfully. Log reports enable users to view details on each instance of the process flow, as specified by the developer or administrator. The software also includes pre-built process flow performance reports that allow tracking and analysis of runtime process metrics. These reports can be used to review process performance and identify resource bottlenecks, present or future.

The Architectural Underpinnings

BPM Server is Java based and uses open standards including XML, XLST, Java, Swing and Web services. XML is the core data integration format – data coming into the server is converted into XML for future processing and archiving. Its presentation layer is Web-based, so users don't have to install a client application on the desktop. Adeptia supports distributed execution by clustering of multiple nodes that can run in parallel on separate servers for load balancing and failover capability. It provides scalability in terms of processing large data volumes and large numbers of concrete transactions. One current BPM Server application handles more than 5,000 transactions an hour, while another processes 100,000 a day. Both are capable of handling more, and both are stable.

The Company

Adeptia, based in two locations, Chicago and Noida, outside of Dehli, India, was founded in June 2000 with the aim of offering cost-effective data integration and BPM software solutions to a market not limited to the Fortune 1000. Adeptia's technology has been deployed in SBC, Pepsi, General Motors, Meadowbrook Insurance and Forsythe Technology. Key customer wins have occurred in the insurance and automotive industries.

BPM Server's unique combination of integration and BPM functionality differentiates it from the competition. The software lets users trigger, monitor, stop and interact with processes in real-time, affords visibility into running processes and enables companies to leverage the latest open standards and technology.

In addition, Adeptia offers a number of pre-built industry specific templates in the form of standard data formats and sample process flows, which give project teams a leg up on their workloads. The company's BPM for Insurance solutions position it as a leader in this industry. BPM Server is worth a look by companies that need a transaction-oriented BPM that's highly configurable and built for easy (or at least easier) data integration.

Related Adeptia Papers

[Technical Paper: Understanding BPM Server](#)

[White Papers: Benefits of BPM for Insurance](#)

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