enterprise integrity

By DAVID McGOVERAN

BPMS Concepts, Part 4

Last month's column covered the technical components, or kernel, of a Business Process Management System (BPMS). That provides a basis for understanding a group of components we can refer to simply as business interfaces. These are the facilities by which users of a BPMS, rather than those who must support its use, interact with the system.

Your organization should integrate business interfaces seamlessly so that the business user can move between them without losing context. The following components are business interfaces:

- **Business process modeler** — The business process modeling tool is the primary interface to the BPMS. It's used to capture, design, and modify business processes and their properties — and the operational and interface properties of the business functions with which they interact. Although the tool will undoubtedly assume a process design methodology, it must not impose restrictions — either in terms of complexity or structure — during process captures. It should let users define and selectively enforce process standards and provide help in developing a transition plan between process designs. Users should be able to see various views of a process, depending on their authorization, functional responsibility and the level of detail they desire. This last requirement is crucial if there's a need for process independence and process abstraction.
- **Business process simulator** — Discrete business process simulation is an invaluable aid in the design, optimization, and troubleshooting of business processes. It should permit altering the distribution of alternate paths, adjusting costs for Activity-Based Costing (ABC), and the distribution of data values that control process path branching and merging. A simulator can provide visual highlighting of potential bottlenecks or inconsistencies and help you identify the best process designs based on user-specified criteria. You should be able to drive a simulation from user-generated data or historical data. Visual presentation of a simulation as it occurs (a.k.a. animation) is highly desirable. You should also be able to see simulation results in a similar manner.
- **Business transaction modeler** — The ability to relate business transactions to business process events and to specify transactional properties is crucial — even if business personnel don't use the technical language of transaction processing. The business transaction modeling component provides the ability to capture and maintain business requirements for audit, consistency, and error recovery (whether by traditional rollback, compensation, exception processing or some other technique).
- **Business metrics modeler** — Unless they can be associated with business metrics, business processes and business functions are of little value to managers. A BPMS must be able to capture the definition of familiar business metrics and relate these computationally to raw measurements — as produced, for example, by the process engine or particular business functions. The distinction between business metrics and raw measurements is essential. For example, expected time-to-completion of a business transaction is of business interest, whereas mean queue times, mean activity service times, and most probable path to completion are too technical and detailed. Business metrics definitions have an impact on which raw measurements are made and how long they're kept.
- **Business process and metrics monitor/manager** — Business managers as well as technical and system administrators need a facility to monitor process instances (in-progress business processes) and the metrics they produce.
- **Business process administrator** — Authorized users need to be able to start, stop, pause, redefine, or transfer a process or business function. They may also need to modify or repair a message or manually assign or reassign resources. The ability to perform these functions on a live process instance is one measure of the agility a BPMS is likely to provide.
- **Business analyzer and report generator** — Many of the questions that business personnel seek to answer require considerable computation and analysis. Sometimes, the analysis involves complex statistical or other mathematical models that the user need not know, but only wishes to use. Report generation (often with sophisticated graphs) is needed to view the analysis, preferably with Web distribution. These facilities are common in Online Analytical Processing (OLAP) systems, although the business analyzer component of a BPMS should be customized for use in a business process environment. Libraries of pre-programmed analyses and wizards for understanding particular business processes would be a valuable addition.

Achieving the benefits of a BPMS requires that your BPMS provide the above business interfaces and the kernel we looked at in last month's column. Such a BPMS would do much to define enterprise integrity. Next month, we'll see how a BPMS can help implement it. eAI

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