Object-Oriented Transaction Processing

The recent merging of distributed object technology and transaction-processing monitors has created a new class of technology known as object transaction monitors (OTMs). OTMs typically contain a comprehensive set of features that make it possible to build enterprise-scale, high-performance transaction processing systems.

Special software is needed in order to process transactions on the Web. Object transaction monitors (OTMs) are software tools that combine traditional transaction processing, which executes a series of steps in the right order, with the ability to manage independent software modules (known as objects) that encapsulate data (see Technology Guide 2). Leading vendors are Sybase (sybase.com) BEA Systems (beasys.com), and GemStone (gemstone.com).

Not all object-oriented transaction processing systems have been successes. One organization that attempted to build a large-scale, object-oriented customer information system had to abandon the project after 12 months. To get full coverage of required skills, the organization had engaged two consultants (both software vendors)—one with deep experience of objects, the other with deep experience of transaction processing. The problem lay not so much in getting two technologies to communicate, as in getting the two consultants to communicate. Their organizational-culture backgrounds were so different that they could not reach a common understanding of how to approach the system design (cscresearchservices.com, 1997).

As more systems based on OTMs are built, there's a need for understanding the concepts and features of the available OTM technologies. It is also necessary to appreciate the important issues that drive the Web-based architecture, its detailed design, and programming. For details on OTM and other TPS recent developments, see Gorton (2000).