Middleware 13887

Technology

Middleware

In the past several decades, a trend has emerged where mid to large size corporations have needed to integrate their existing mainframe systems with their newer PC based information systems. With this shift in focus toward PC based communications and productivity software that became available on the market, companies scrambled for ways to tie PCs and mainframes together. This created the need for middleware.

Companies discovered that the hardware and programming, involved in maintaining mainframe systems, was too costly to replace overnight. In addition to the expense, the applications in place for the most part served their purpose and appeared to be much more stable than the personal computers. They maintained master files for customers as well as inventory levels, generated bills and invoices and, with the right programmer and vision, the mainframes could extract just about any information that managers needed.

As PCs became more prevalent for a fraction of the cost and with the development of the Internet and a global network, PC applications with productivity software such as Microsoft Office and connection to the Internet have become imperative in almost every business setting. As these resources became available, users such as employees could now access information easily and instantly, share information simultaneously, and communicate both externally and internally through electronic mail. The questions then arose concerning what to do with the expensive mainframe

systems and how to permit the PCs to interact. Middleware has become the solution to this problem.

A middleware program is an interface between an application and a server. The most useful are those that allow access to the vast resources stored on the highly developed and expensive mainframe databases with a simple user friendly program, like a web browser. Another example is what Kaiser Permanente implemented to ease the ordering and monitoring of prescriptions. Kaiser bought a NetWeave middleware solution to tie its VAX pharmacy systems to a Tandem master subscriber database to allow subscribers to dial in prescription orders from their touch-tone phones. NetWeave gives us an illustration of how middleware works below. You can find more information on NetWeave at www. netweave. com.

It is clear that with the rapid shift in business focus to pc-based information systems, which the demand for scalability and information on-the-fly, will create a huge demand for middleware. It allows an end-user to access information that before only a programmer could. Then, maybe he would generate another program that send the information to a report that would be printed then distributed. Middleware puts that information directly in the minds of the end-users in real-time. It creates a whole new group of informed users pulsating through the nerves of the corporate digital nervous system.