CIO Update: IBM Announces New Client Software

The emerging generation of client software architecture will again pit IBM and Microsoft against each other in major competition. IBM must prove that it can develop a viable alternative to Microsoft’s platform.

IBM Announces Workplace Client Technology

On 10 May 2004, IBM announced its Workplace Client Technology, which is intended to create a new model for delivering client-side applications. The new platform also aims to combine the flexibility and rich user experience of the traditional “fat client” model with the simplicity and ease of management of the “thin client” or browser-based model.

Platform Components and Functions

IBM Workplace Client Technology is composed of a set of platform components that could be considered “client-side middleware.” It’s intended to enable the development of client applications that can be centrally managed and deployed, thus avoiding intervention on desktop machines, which is achieved by providing access to server-based applications via a Web browser.

IBM Workplace Client Technology also offers local processing and, together with offline capabilities, creates a richer user experience without needing to be continuously connected to a server. These capabilities will complement the maturation of Web services and enable the direct consumption of Web services by client-side software, not just server-side software. By 2007, rich clients will supersede portals as the primary platform for the consumption of Web services (0.8 probability). The objective is to achieve the total cost of ownership of a thin client that has the capabilities of a fat client.

The IBM platform consists of:

- A version of the Eclipse framework.
A local database that’s capable of transparent background synchronization with a server, using SyncML.

A small application server to enable the local execution of browser-based software.

A set of document editors for word processing, spreadsheets and presentations based on Open Office.

A deployment framework to enable centralized software distribution and management, including the configuration of application options as well as the general “look and feel” of the application. This involves a new deployment server and using WebSphere portal as a framework to manage desktop configurations.

**Runs on Windows and Linux**

Development of this platform can be undertaken using tools such as WebSphere Studio, but IBM also intends to release a Lotus Workplace Builder tool. The platform can be run on Windows and Linux, and on the full range of client device formats from desktop PCs to small-format portable devices. The platform won't be a separately licensable product, but it will be embedded in any application that uses it. The base platform is available to independent software vendors (ISVs) immediately, and the Workplace Builder should be released by year-end 2004. At this time, however, IBM’s client software isn’t an alternative to Microsoft Office.

IBM plans to release two of its own applications that run on the platform: Lotus Workplace Messaging 2.0 and Lotus Workplace Documents 2.0. These are important proof points for the viability of the technology, but the real test is whether IBM can generate sufficient interest and support from other application developers to create a credible alternative to the dominance of Microsoft .NET. IBM’s initial announcement included support from Adobe Systems, PeopleSoft, Siebel Systems and approximately 10 other ISVs. This was a useful start, but insufficient to create a critical mass.

IBM isn’t alone in recognizing that the dichotomy between traditional fat clients and browser-based access to server systems is constraining software development and delivering suboptimal results to users. In addition to the growing need to support a diverse range of client devices, this makes current approaches unsustainable. The new generation of service-oriented business applications will require rich clients as Web services consumer platforms, not only for end-user access, but also to support intelligent alerting, sensor interfaces and flexible business process management.

**Microsoft’s Attempts**

Thus far, Microsoft has made piecemeal attempts to address these issues with client-side components of its .NET Framework and Windows SharePoint Services. However, it still lacks major features such as database replication, which is achievable only in the latest version of Outlook for limited data types (primarily e-mail and calendar).

For document replication with SharePoint, Microsoft relies on Groove Workspace. Microsoft is also extending the capabilities of Office so it can act as a client through Word-accessing HTML, Excel-accessing SQL Server and new tools such as InfoPath, which provides XML-based forms processing. In the open-source community, the Mozilla Organization and GNOME teams are looking to browser integration and XUL to address some of these issues.

**Likely Steps in the Longhorn Release**
Microsoft probably will take some important steps in the Longhorn release of Windows, where it’s looking to integrate Internet Explorer with a new user interface based on XAML. However, the diversity of Microsoft’s product legacy, and its need to maintain the substantial revenue stream derived from Office, make it more vulnerable to possible attack from IBM (now largely free from client software legacy), and perhaps even open-source competition, than at anytime in the recent past.

Shaking Microsoft’s huge desktop franchise is a daunting challenge — even for IBM — and Microsoft’s competitors have a history of self-destruction by competing among themselves. In this case, IBM must rationalize its approach to that of the open-source community for Eclipse, Open Office and browser evolution. IBM also must gain sufficient acceptance of its platform from other major infrastructure vendors so that they all don’t produce different alternatives to Microsoft.

To date, there have been two distinct domains for competition: for the client platform and for the personal productivity applications that traditionally run on the platform. However, as the currently limited adoption of Linux on the desktop shows, a platform without the expected applications is of minimal interest to users.

Conversely, the need to achieve adequate (and, thus, high) compatibility with Microsoft Office prevents substantial variation among the applications. By incorporating Open Office components in the platform, IBM is following Microsoft’s example and using the lever of “free software” to attack Microsoft where it hurts most. Of course, Microsoft could easily bundle Office (as well as Internet Explorer) into Longhorn (subject to possible antitrust concerns), but the revenue hit would be horrendous.

**New Phase of Competition**

IBM has chosen to pursue this new phase of competition as a corporatwide initiative, not just within the Lotus division or the Software Group. It’s demonstrating the seriousness of its intent, despite ugly memories ranging from OS/2 to Lotus eSuite. Enterprises may dislike the potential disruption caused by renewed competition with regard to desktop software, but if IBM is successful, the benefits in terms of renewed innovation due to increased competition could be substantial.

**Bottom Line**

- IBM is making a major, strategic move to reclaim its role on the client side of software architecture.

- IBM Workplace Client Technology includes the necessary capabilities to provide an attractive platform to users.

- The proof depends on sufficient independent software vendor adoption to create a credible alternative to Microsoft’s platform.

- This has yet to be achieved. IS organizations should assess the critical mass of ISV exploitation before committing to the strategic use of this technology, but they also should note that major changes in client-side software architecture are inevitable.

- ISVs must investigate IBM and Microsoft architectures and deliverables and be ready to decide which one to support by mid-2005.

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