Tivoli Turns Blue

All pieces of printed marketing literature for IBM's SystemView products invite potential customers, "When you think systems management, think IBM." Now that IBM is in the process of acquiring distributed systems management framework and tools vendor Tivoli Systems of Austin, TX, managers of distributed open systems are more likely to think of IBM when considering the purchase of such products. Although SystemView for AIX (the IBM version of Unix) has incorporated some network management framework technology licensed from Hewlett-Packard, the current SystemView product line is a disparate collection of platform-specific systems management tools for MVS mainframes, AS/400s, PCs running the OS/2 operating system and RS/6000s running AIX.

"SystemView lacked any consistent agent technology, and its common launch pad does not provide a meaningful level of integration," says Chet Geschickter, vice president of Hurwitz Consulting Group of Newton, MA, in a published report on IBM's acquisition of Tivoli.

By IBM's own admission, SystemView lacked the breadth that competing systems management solutions, such as CA-UniCenter from Computer Associates and HP OpenView, can provide. "IBM SystemView already has the tools. What we lacked was an object-oriented framework to link them," says Alfred Zollar, vice president for SystemView at IBM's systems management group in Research Triangle Park, NC. "There is synergy in this merger, because we and Tivoli share a vision of how system management applications should be delivered." (IBM consistently refers to its cash tender offer of $743 million for Tivoli as a merger.)

Predictably, Tivoli echoes this view. "IBM has not changed its SystemView architecture. Rather it has acquired an implementation of it," says Martin Neath, vice president and general manager for the Tivoli Management Environment (TME) core products.

For Tivoli, becoming part of IBM is in some ways a return to its roots. The company was started in 1989 by two former IBM employees who developed the idea of an object-oriented systems management framework while working at IBM labs in Austin. Another ex-IBMer, Tivoli CEO Frank Moss, now returns to the company at the senior executive level, as head of a yet-to-be-named division that will include more than 300 developers working in Research Triangle Park and Rome, Italy, along with Tivoli's Austin-based developers. On the sales side, Alex Kuli, an ex-IBMer who headed Tivoli's sales staff of about 70, will oversee a systems management sales force of more than 300. According to

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Plan 9 Draws a Crowd

One of the pleasant surprises during the UniForum '96 Conference in February was the enthusiastic response to the extended session "An Evening with Plan 9." At the gathering, an audience of more than 500 serious open systems professionals heard the latest available information on the new operating system, which originated in the famed AT&T Bell Labs. Two of the principal developers of Plan 9—Dennis Ritchie, the Unix legend, and David Presotto—addressed the crowd in the packed room.

Plan 9 is finely tuned for distributed computing and consists of three parts that can be installed on separate systems: a network file server, an applications server and a client. It can run on systems as low-powered as the Intel 386 processor, as well as on Sparc and Mips RISC chips and the Motorola 68020 found in some Macintoshes. It can read Unix files and supports the Posix and ISO C environments. Plan 9 also features a windowing system and support for machines that use multiple processors.

An air of expectation in the room gathered around Ritchie's celebrity in open systems circles. Both he and Presotto are now part of Lucent Technologies in Murray Hill, NJ, the systems and technology company formed after AT&T's most recent restructuring. Aided by the research and development resources available from Bell Labs, Lucent's charter is to design, build and deliver public and private networks, communications systems and software, consumer and business telephone systems, and microelectronic components—an impressively wide-ranging list.

Ritchie said that Plan 9 began as a research project prompted by three thoughts: that Unix is now "boring"; that networks and graphics capabilities are firmly established aspects of computing; and that traditional computers—mainframes, minicomputers, workstations and PCs—are not the final answer to evolving needs. The key ideas in Plan 9, he said, are that all objects are files named in the file system name space (this category includes real files, devices, networks, processes and services); that all operations on files can be turned into network messages to a file system server; and that what the file name space applications see is dynamically and individually bound to running processes. Therefore, the applications are "unconscious" of where they are actually running, and services are provided in a uniform way.

According to Ritchie, one of the principal concepts driving the development of Plan 9 is "extreme platform independence," under which all platforms access a common file system. Different machines can then be connected through various kinds of networks and yet be dealt with in a common way. The major hardware components for Plan 9 don't include the usual systems. Rather, they are

terminals equivalent to diskless workstations, possibly with file caches;

CPU servers to which large computations can be exported and special services can be imported;

file servers;

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Tivoli Turns Blue

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Neath of Tivoli, IBM plans to nearly double this sales force by the end of this year.

Carping and Competing

With a beefed-up sales force and an open object-oriented framework, IBM suddenly becomes a serious contender for MIS mind-share at a time when many IS managers are struggling to manage a growing number of heterogeneous systems without increasing their staffs. Computer Associates responded to this competition by running full-page ads in computer industry trade publications with headlines that refer to Tivoli's loss of independence and by openly soliciting TME developers with job inquiries.

In response, Tivoli distributed an open letter to customers and industry colleagues during UniForum '96 in February. In it, Moss refutes the idea that TME is on the verge of becoming less open. No preference will be given to IBM platforms, he argues, promising that Tivoli will continue to expand its partnership relationships, for example, by working with Oracle Corp. to support a TME-based Oracle management product. Geschickter of Hurwitz Consulting reasons that customers need not worry about TME developers focusing resources on IBM platforms to the exclusion of others. If IBM were to take a closed system approach, it would sabotage the value of its own asset, he says.

IBM gets a framework, Tivoli gains resources for tool integration.

Tivoli will compete head-to-head with HP in the race to offer the most platforms, to sign up new partners for its framework and to provide a deeper level of integration for previously integrated tools. TME currently supports 20 platforms, including 14 varieties of Unix as well as Microsoft Windows NT, which has been available for over a year. In March, HP announced that it would introduce NT-based agents for its OpenView systems, network, application and database management solutions during the first half of 1996. On the Unix side, OpenView supports eight platforms, including AIX.

Application performance management is another area in which system management framework vendors compete for mind-share and alliances. In 1995 Tivoli launched its application management strategy and introduced a management solution for R/3, the integrated client/server suite from SAP America of Philadelphia. HP says that a version of OpenView IT/Operations (formerly called HP OpenView Network Node Manager) for managing R/3 will be available in the second half of 1996. Action Request System, a client/server help desk application from Remedy of Mountain View, CA, which has been integrated with HP OpenView for over two years, will increase the depth of its integration with OpenView and also be integrated with TME this year.

Competitive pressures produce strange bedfellows. IBM's intent to absorb Tivoli invites comparison to another recent acquisition. If the acquisition proceeds as planned, systems management will become one of five software groups managed by John Thompson, an IBM senior vice president. The groupware division, led by Lotus Notes, is another of the five. Like Lotus, Tivoli will continue to keep its brand name. The reorganized products group that Tivoli will join will be Tivoli-centric, says Neath.

A more skeptical view of these acquisitions is that IBM is buying time-to-market and recovering from misbegotten attempts at creating strategies for distributed open systems. "IBM is going outside the company to clean up its systems management act, the way it did last year [by acquiring Lotus] to get its groupware act together," says Geschickter. Time will tell how well the money has been spent.

—Peggy King

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Plan 9 Draws a Crowd

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and fast network connect servers with slower networks connecting terminals.

Ritchie stressed that Plan 9 research is directed at structure, not features. Some of his remarks certainly appealed to purists in the audience. "We are not in the general operating system business; we are producing ideas and examples," he asserted. He added that Unix, Windows and Windows NT are "hard to compete with" and that it really isn't feasible in the current industry environment to create another general-purpose commercial OS. He cited the tribulations of OS/2 Warp as proof. Instead, Ritchie expressed hope that Plan 9 will be adopted for commercial applications such as set-top boxes, for which its small size might be appropriate. It has a 300K kernel program as opposed to 500K to 1.5MB for commercial Unix.

Further development of this distributed operating system could be delayed by Net work.

Attack of the Java Killer?

In response to a question at the end of his presentation, Ritchie alluded to a project of "looking into Plan 9 technology" to create a transportable operating system and programming language. This was, of course, a reference to Bell Labs' supposed rival to Sun Microsystems' Java, codenamed Inferno. In statements subsequent to his appearance at UniForum, Ritchie called the concept behind Java "compelling," adding that any proposed AT&T version would be designed to be useful on a variety of machines, perhaps even including high-tech future televisions.

It is not clear now exactly how far work has progressed on Inferno, but the project is apparently of such importance that most of the Plan 9 staff has been diverted to its development. It is also unclear whether any decision has been made to actually bring it out as a product. However, industry analysts say that there is interest in Inferno at the highest levels of management at AT&T. IT

—Cedric Braun