Unix's secret tax bills

Gordon Bell

The Unix Cartel — that group of vendors that supplies and maintains Unix dialects (or what I call VendorIX) — has laid open systems traps that allow its members to continue to supply proprietary, high-margin platforms. Once users buy into a platform, they are locked in and limited to those applications that independent software vendors port to that platform. Issues of compatibility and training make conversions expensive and impractical, compared with the PC industry.

“Standard Unix” is an oxymoron. Its backers claim that it’s an undifferentiated, “open” standard, yet vendors maintain differentiated products. The word “standard” now means “different.”

The Unix standard that responded to the Microsoft Windows NT threat is technically and behaviorally impossible. Every part of Unix that a user or program sees must be identical; hence, one source is required. The Unix dialects and the 1,170 interfaces create a gigantic make-work program for downstream networking, database, middleware and application software vendors. For users, that brakes progress.

Vendors spend at least $1.5 billion annually to maintain the Unix dialects. That’s more than $1,000 per copy for computer makers that have to “throw in” their VendorIX for free. A realistic “price” would be marked up six times for research and development. This would price the VendorIX platforms — especially low-priced workstations — well above the market.

As PCs and workstations converge in terms of performance and it becomes widely known that x86-based multiprocessor servers (for example, Compaq’s ProLiant) are the most cost-effective, the price pressure will increase. Hardware vendors that support Microsoft’s Windows and Windows NT for PCs, workstations and servers — and that don’t have to maintain dialects of Unix — will have the advantage. NT runs on all platforms at a price that VendorIX can’t touch.

Independent software vendors and database companies supplying their own custom database implementations (“MYSQL”) with locked-in applications operate at 40% efficiency, spending most of their R&D and support maintaining about 10 versions of their code on the various VendorIX platforms. Having to maintain all those versions operates as a Database Tax resulting in 2½ times higher software prices if costs are marked up. More importantly, Microsoft’s NT and SQL Server nearly eliminate the Database Tax by providing users with the benefits gained from very high volumes and low cost. Highly profitable, low-volume database prices are maintained at more than 40% of the sales price of expensive VendorIX servers. So database companies have as much as the VendorIX Cartel to lose with NT.

The cartel developed downsizing so its members could live well under the umbrella of mainframes, operating systems and databases. The combination of Windows and NT attacks the downsizing market by delivering desktop-compatible server software in millions of units in conjunction with the PC and x86-based server hardware firms.

The cartel has no hope of competing other than to stonewall NT as long as possible. Supporting NT SQL leads to comparing VendorIX and MYSQL platforms. If NT were out of the picture, the market could revert to “open systems” doublespeak. As prices increase, users are limited to the inherently low-volume, higher-priced databases and independent software vendor apps that run on specific VendorIX platforms.

Unix by Unix, and client/server computing remains an unattainable goal.

Bell, former vice president of research and development at Digital Equipment Corp., started the National Science Foundation Computing Directorate and is a computer consultant. He can be reached at gbell@mojave.stanford.com.