

THE EDITOR'S VIEW

Chicago's Track to RISC May Be Derailed

RISC Vendors Could Be Disappointed as NT Remains a Niche Product

RISC chip vendors, their hopes for increased volume dependent almost entirely on Windows NT, must feel like Charlie Brown. Every time they are ready to kick the football and send NT sales soaring, Microsoft pulls the ball away, first by making NT too big for mainstream PCs, then by creating the x86-only Chicago (Windows 4.0) for its mainline customers. RISC backers now see Cairo as their big opportunity, but don't be surprised if Microsoft pulls the ball away a few more times before finally letting RISC processors play in the mass market.

Microsoft did not create Windows NT to be the savior of RISC. If that was the intention, NT could have been much smaller (in memory requirements) than the current product, making it more suitable for low-cost systems. A "light" NT would have left out features such as security and MP support but would have been adequate for mainstream PC users. Such a product, however, would provide little strategic benefit to Microsoft.

Instead, NT represents a thrust into two markets in which Microsoft historically has been weak: workstations and servers. As such, it constitutes a direct attack against UNIX and NetWare, the operating systems that have dominated these markets. Note that Novell, Microsoft's biggest OS competitor, owns NetWare and one of the major UNIX variants, conveniently positioning that company to bear the brunt of the NT attack.

Thus, Microsoft beefed up NT with features that are required in these areas and that are offered by competitive products. Given the relatively poor position of the x86 in these markets, the ability to run on RISC processors became a market requirement. For Microsoft, reducing its dependence on Intel must have been a minor motivation, at best, for portability; otherwise, the company would have adopted the "light" NT strategy.

To clarify the position of its new operating system, Microsoft recently began marketing it under two names: Windows NT for Workstations (WNW) and Windows NT for Servers (WNS). It is unnecessary to call Chicago "Windows for PCs"; the implication is clear.

With three well-defined product lines established, it is unlikely that Microsoft will simply cut the price of whatever version of WNW is available in 1996 and offer it to mainstream PC users. Such a move would destroy the position of WNW as a high-end desktop OS and leave Microsoft without a product in this space. Instead, the company will probably enhance both its PC operating system and its workstation OS. In this way, both products can be carefully designed for their target markets,

and Microsoft can continue to charge a premium for the high-end product.

While maintaining three product lines for marketing purposes, the company will move particular features from one line to another to meet market needs and strategic goals. A version of the Win32 API, originally developed for NT, has been adopted by Chicago. Multi-processor support, now a high-end feature, may move into the PC operating system in a future release. Some things will move in the other direction: Chicago's new user interface will appear in a future version of WNW.

A secondary objective for the arduous task of making NT portable was to give the company a portable kernel that it could keep in its hip pocket and drop into the mainstream OS when needed. Microsoft can now carefully monitor its primary market and quickly develop a portable PC operating system when conditions require it. So the key question for RISC vendors is not "when will Microsoft make NT its mainstream OS?" but rather "when will portability become a requirement for the mainstream PC market?"

Microsoft is in business to make money for Microsoft, not for RISC vendors. It won't put the portable kernel into its mainstream products unless there is a sound business reason to do so. RISC vendors waiting for an inexpensive version of NT to jump-start their sales will find that Microsoft will continue to undercut NT with a less expensive x86-only OS for some time to come.

Of the RISCs, only PowerPC has the ability to grow without a significant contribution from Microsoft, relying instead on Macintosh OS and OS/2. Indeed, if these products begin taking customers from Microsoft, that company might soon deploy its own portable mainstream OS. But if the Power Macintosh is any example, most of the customers for these alternative products will be current Mac and OS/2 users, not people switching from Windows.

Ultimately, Intel's move from the x86 to a next-generation architecture will force Microsoft's hand, but this transition won't happen until 1998 or so. Without a strong early showing by PowerPC, RISC vendors may not get access to Microsoft's mainstream OS until the end of the decade. Ironically, this would leave RISC processors unable to compete with x86 chips on an equal

