

THE EDITOR'S VIEW

One Year Later: NT-on-RISC Still on Runway

Despite Hopes of MIPS and Digital, Little Payback on NT Efforts

Just one year ago, Microsoft began shipping production copies of Windows NT version 1.0. For the first time, a Microsoft operating system was available on RISC platforms, specifically MIPS and (shortly thereafter) Alpha. According to RISC proponents, this opportunity should allow them to compete head-to-head with x86 PCs and, due to the inherent superiority of RISC, begin to increase market share.

So far, the RISC vendors have more hype than shipments. According to CI InfoCorp, Microsoft shipped about 500,000 copies of NT in its first year of release, compared with about 25 million copies of Microsoft Windows. The vast majority of NT systems use x86 processors; there are only a few thousand MIPS systems running NT and a similar number of Alpha boxes.

The biggest problem for NT-on-RISC so far is that NT simply has not taken off as hoped, perhaps because of the price premium of an NT system compared with Windows 3.1 PCs. While the latter systems ship with 4M or 8M of main memory, NT requires 16M to run at all and 24M or more to run well, particularly on a RISC processor. This difference has been exacerbated by the stubborn refusal of DRAM prices to drop on schedule, creating a memory premium of several hundred dollars on top of the \$249 premium that Microsoft charges for NT. The tiny volumes of RISC PCs also lead to higher costs.

Under these circumstances, major PC vendors have been slow to embrace Windows NT. Those that have, simply offer it as an option on their standard x86 products. With such low volumes, there is no reason to deploy a unique line of RISC PCs that can run NT only. This leaves a handful of tiny companies with names like Carrera and Aeon marketing RISC PCs. The only big companies with such systems are Digital, NEC, and Acer; all are putting far more emphasis on their x86 PC lines.

With little volume and no commitment from major system vendors, software developers have been hesitant to port their applications to NT-on-RISC. This lack of software gives system buyers little incentive to make the move to NT, creating a Catch-22: with few system buyers, ISVs are less interested in porting applications.

Digital and MIPS Technologies (MTI) have been trying to break out of this vicious circle in a time-honored fashion: offering resources and, in some cases, cash to help ISVs convert their applications to the new platforms. Of the two, Digital has been more successful and probably will continue to be in the short term. The company is taking advantage of its higher performance to

position itself as the NT platform for power users. These users are willing to pay a premium for NT and the incremental DRAM, and they see the value in paying a bit more to get the best possible performance. Many of these power users are pricing NT systems against costly RISC workstations running UNIX.

Digital has been targeting ISVs in CAD, CASE, and other traditional workstation markets. By the end of this year, the company expects to have most of the leading applications in these key areas as part of a portfolio of 1,600 NT applications on Alpha, about 500 of which are shipping today, according to Digital. This strategy ties in with Microsoft's new positioning of its client product as Windows NT for Workstations. Digital hopes that sales in these areas cannibalize someone else's UNIX workstation business and not its own.

MTI based its original NT strategy on offering Pentium performance at a lower price, expecting the R4200 and R4600 to do well in low-cost NT systems. After it became apparent that NT is not yet suited for low-cost systems, MTI instead emphasized the higher-performance R4400 as an NT engine. ISVs have been slow to respond, perhaps because the Alpha chips are even faster than the R4400. Digital also has a larger bankroll behind its NT effort. As a result, there are only 70 NT applications currently shipping on MIPS, a number that MTI expects will grow to 160 by year's end.

The imminent availability of NT on PowerPC has made it more difficult for MIPS and Alpha to gain mindshare and ISV support. Many ISVs are excited about PowerPC, even though it trails its more established competitors in NT availability, chip set availability, and committed system vendors (unless you count IBM's lukewarm endorsement of NT). This excitement comes mainly from the backing of Motorola and the potential support of IBM, which outshine the meager backers of MIPS and Alpha.

By the time NT approaches any kind of volume, PowerPC will have caught up to its predecessors in most regards. Motorola alone has an enormous war chest to help ISVs port to PowerPC. As often happens, Digital and MTI may find that being early to market is not much of an advantage. In the meantime, NT-on-RISC will remain stuck on the runway, waiting to take off. ♦

