

THE EDITOR'S VIEW

Sun Seeks Formula to Increase SPARC Sales

Pinched Between PCs and Powerful RISCs, Sun Finds Growth Slow

Sun has been losing its luminosity lately. SPARC system sales are flat, and the company is losing share (down 1%, according to Dataquest) in the bread-and-butter workstation market to aggressive new products from Hewlett-Packard (up 4%) and Silicon Graphics (up 2%). The company was a model of growth in the high-flying '80s as its stock price soared and hiring was robust. But these indicators have been flat for the past couple of years as the company seeks a new strategy for growth.

Sun remains the number one workstation vendor, its lead particularly dominant when measured in unit sales. The company has done best in the low end of the workstation market, mainly because it has been able to develop low-cost systems faster than any other vendor. Sun was the first with a workstation priced at less than \$10,000 (the SparcStation 1 in 1989) and the first with a full system for less than \$5,000 (the SparcClassic in 1993).

By leading with lower prices, Sun has dominated the high-volume segment of the workstation market. This volume leadership has convinced more ISVs to port their applications to SPARC than to any other RISC platform. This software base has helped Sun retain most of its market share in the face of noncompetitive CPU performance; as Scott McNealy says, it doesn't matter how fast a system is if it doesn't run the necessary applications.

Other workstation vendors have now caught up on the price front. With new low-cost CPUs such as the PA-7100LC, PowerPC, and R4600, Sun's competitors have deployed high performance machines at less than \$10,000, a segment that Sun can no longer call its own. These competitors are also differentiating their systems with better floating point, graphics, and video.

Sun traditionally escaped competition by establishing a new price point and, with its newly repriced \$2,995 Classic, is attempting to do just that. Unfortunately, Sun has run smack into the PC world. The anemic Classic is outperformed by a 486DX2 system that sells for hundreds of dollars less. Even Sun's faster systems are under attack from well-equipped Pentium PCs (see [0804ED.PDF](#)), some of which sell for about the same price as the Classic and offer twice the performance.

Although Sun has a better grasp of low-cost manufacturing than its workstation competitors, it can't match the cutthroat players in the PC market. In fact,

the new Pentium machines may bite back if some of Sun's traditional technical users seek the lowest-cost platform. To avoid this fate, Sun would be well-advised to jettison its SBus in favor of the more widely favored (and higher-performance) PCI, although this would require modifications to the MicroSparc processor.

Simply holding the fort against powerful PCs will not allow for much growth. Sun could decide to reverse its traditional strategy and attack the performance leaders. The company claims that its forthcoming UltraSparc chip will put it back in the performance race by delivering 275 SPECint92. But given Sun's poor track record with such claims, the company will have to demonstrate shipments of these systems before anyone believes that they really exist. Even if Sun fulfills its promises, it may find that HP and Digital are quite entrenched among the performance junkies.

The SPARC vendor has also been venturing into the server market with some success. As with workstations, however, Sun has no technology differentiator in this area, basing its success on lower prices. Here, too, the company is vulnerable to incursion from PC vendors. Compaq is already selling small servers and looking to move up. Using merchant technology like Vitesse's V-Bus (see [080701.PDF](#)), even PC companies with few engineering resources will soon be able to build servers with better performance than Sun's SPARC systems.

Sun likes to point out that the SPARC architecture ranges from notebook systems to Cray's supercomputers, all running Solaris and compatible with the large SPARC software base. Intel and Microsoft, however, are moving to establish Windows NT on x86 in a wider range of systems from many more vendors, tossing in compatibility with the even larger base of applications written for DOS/Windows. Within two years, NT-on-x86 will be a significant threat to Sun's most-scalable-architecture story, letting x86 vendors turn McNealy's observation in their favor.

Sun remains both the largest buyer and main progenitor of SPARC processors. If Sun cannot find avenues for growth, SPARC will suffer. If Sun wishes to continue its past successes in the face of PC competition, the company must supplement its low-cost strat-

