

Somerset Has Outlived Its Usefulness

Pulling the Plug on PowerPC Design Center Would Be a Mercy Killing



Over the past several weeks, rumors have been rampant that Motorola will withdraw from Somerset, the PowerPC design center it shares with IBM. These rumors gained momentum as Apple made clear its intention to revoke the ability of third parties to manufacture Macintosh clones (see MPR 10/6/97, p. 4). We have found no Motorola source willing to confirm these rumors, either on or off the record. It has become apparent, however, that Somerset has outlived its usefulness.

When the PowerPC partnership was first launched in 1991, the chip vendors believed PowerPC would exit the decade with somewhere between 10% and 20% of a 100-million-unit PC market. Due to a list of missed opportunities (mainly by Apple and IBM PC Co.) too long to review here, PowerPC will be lucky to have 5% of the PC market in 1999. Chip sales totaled about four million units last year and aren't likely to exceed that number this year. With Apple porting its Rhapsody OS to Intel processors, PowerPC shipments could drop even if Apple's market share steadies.

Somerset employs hundreds of engineers in an effort to keep pace with Intel's x86 products. We estimate the design center costs nearly \$100 million per year to operate. At an average selling price of \$100 (about half of Intel's ASP), the total PowerPC chip revenue this year would be about \$400 million. A generous gross margin of 50% would leave \$200 million to cover all of PowerPC's costs, including Somerset, manufacturing, marketing, and sales. The net return might be positive, but it can't be very large.

Of the two partners, Motorola is in the worse position. Sources indicate that Apple buys more chips from IBM than Motorola; at best, Motorola is collecting half of any meager profits from Apple's purchases. With the collapse of Windows NT on PowerPC and Apple's termination of Mac clones, there are no other system makers to which Motorola can sell PowerPC chips.

IBM's situation is different—it relies on Somerset chips for its own RS/6000 line of workstations and servers as well as for sales to Apple. No matter what happens with Apple and Motorola, IBM remains committed to the architecture.

Given the lack of profit, however, it makes little sense for Motorola to continue funding Somerset's development of desktop PowerPC processors. Instead, IBM should bear the cost of developing the new PowerPC chips that will be used by both Apple and itself. This arrangement would eliminate the need for Somerset as originally constituted.

If that happened, Apple could continue buying processors from both Motorola and IBM, but ultimately only IBM would be able to supply the newest designs. Apple might not like having a single CPU supplier, but I doubt the Mac vendor is willing to pay enough to keep both Motorola and IBM happy, given its current level of consumption.

Such an arrangement would free Motorola to focus on embedded PowerPC products. Although Motorola's legal rights if Somerset dissolves have not been made public, we assume the company would retain the right to manufacture all processors already completed by Somerset, including the 603, 604, and 750 families. Motorola would probably also have the right to develop its own derivatives.

With these cores in hand, Motorola could keep most embedded customers happy for many years to come. The company has already developed its own embedded PowerPC products and recently announced an embedded version of the 603e (see MPR 10/6/97, p. 8).

Abandoning Somerset would leave Motorola without a desktop microprocessor. This omission would be somewhat of an embarrassment to Motorola, which spent years as the leading contender to Intel on the desktop. The company has clearly lost that war, however, and it is time to admit defeat and move on. There is no real penalty for exiting the desktop market; some might argue that the desktop chips are driving Motorola's IC process development, but the company's leading-edge fabs devote more wafers to SRAMs than to PowerPC processors.

Like Motorola, IBM is interested in PowerPC for the embedded market. It has developed its own products, the 4xx family, and has had some design wins in set-top boxes and other devices. A possible post-Apple role for Somerset would be coordinating joint development of new embedded processors that the two vendors would share. Such a restructuring, however, would be a radical redefinition of Somerset's original charter.

The latest word from Motorola executives is that the company "will continue to sell PowerPC chips as long as Apple wants them." The company also admits, however, that it needs to match future investments with anticipated demand from Apple. This implies that Somerset will be either cut back or refocused on embedded products that lie outside of Apple's core markets. ■

Linley Gwenn