MOTOROLA BUYS C-PORT: SMART MOVE

By Tom R. Halfhill {3/6/00-03}

By offering $430 million in stock for C-Port, a fabless network-processor startup, Motorola is acquiring a powerful NPU to complement its existing lines of communications chips. At the same time, the deal counters some recent incursions onto Motorola's turf by major rivals

such as IBM and Intel. Overall, it's a smart move for Motorola.

C-Port's main product is the C-5, a high-end NPU for routers and other communications equipment (see *MPR 10/6/99-en*, "IBM, C-Port Network Processors Challenge Intel"). The C-5 integrates 16 channel processors that receive, process, and transmit cells and packets, plus five on-chip coprocessors that offload table lookups, memory management, and other router-specific tasks. Volume production of the first 200MHz parts began this quarter. The C-5 will compete against Intel's IXP1200, IBM's Network Processor, and several other NPUs announced over the past year (see *MPR 9/13/99-01*, "Intel Network Processor Targets Routers").

Communications is core to Motorola's business strategy—the company sells everything from cell phones and walkie-talkies to network-specific CPUs and DSPs. Motorola introduced its 68300-based QUICC (quad integrated communications controller) processors in 1989 and the PowerPC-based PowerQUICC line in 1995 (see *MPR 9/11/95-02*, "New PowerPCs Aimed at Consumer Devices"), so the company has more experience with network silicon than several startups put together. But a new breed of NPUs that are even more highly integrated has stolen the thunder from Motorola's chips in recent months. By scooping up the C-5, Motorola closes a gap that eager competitors were trying to exploit.

Along with the C-5, Motorola gets matching development tools that allow programmers to code in C or C++ instead of assembly language. C-Port says it spent half of its development effort working on these tools, which could help differentiate the C-5 from competing NPUs.

The deal also creates some (more) interesting relationships between Motorola and IBM. C-Port has a foundry arrangement with IBM, which the company says will continue after Motorola's acquisition. C-Port and IBM were also cofounders of the CPIX (Common Programming Interfaces) Forum, an industry group that is working on cross-platform APIs for NPUs. That arrangement will continue as well. Thanks to their joint work on PowerPC, Motorola and IBM have a long history of "co-opetition."

If one of our theories is true—that corporate acquisitions, like celebrity deaths, tend to happen in threes—then more buyouts of network-processor companies may be in the offing. We could start by counting Intel's acquisition of Digital Semiconductor in 1998, which is how Intel inherited the NPU that later became the IXP1200, except that at the time Intel didn't know that Digital was developing the chip. Maybe Intel's purchase of Level One is a better place to start.

At any rate, there are still some companies that might be desirable takeover targets. Two that come to mind are Lexra (see *MPR 12/6/99-03*, "MIPS vs. Lexra: Definitely Not Aligned") and SiByte (see *MPR 12/27/99-en*, "SiByte Licenses MIPS for Network Processor"). Both are young and relatively small companies, and both develop cores that would make solid foundations for NPUs. Maybe the Motorola/C-Port deal will inspire a buying spree. ◇