

No More HP Alpha Processors

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Hewlett-Packard will release its final Alpha processor on Monday - the 1.3GHZ Alpha EV7z. The chip will be incorporated into the existing HP GS 1280 server. HP will continue to sell its AlphaServers through 2006, and will support them until 2011.

The Alpha is a 64-bit RISC microprocessor. Alpha was born out of an earlier failed RISC project named PRISM. That earlier architecture was killed by the popularity of Digital's own VAX computer line -- the executive staff couldn't see the need to replace their cash cow at the time. Another problem was that PRISM was to have a totally new operating system called Emerald which was not compatible with the older VMS OS and the full software suite would not be ready for some time. Eventually some of the company engineers saw that other RISC architectures, such as SPARC and MIPS, were offering much better price/performance than the VAX lineup. So a study was started to see if a new RISC architecture could be defined to support the VMS operating system. Eventually that new architecture became Alpha.

The first few generations of the Alpha chips were some of the most innovative of their time. The first device, 21064 or EV4, was the first CMOS microprocessor whose operating frequency rivalled higher-powered ECL minicomputers and mainframes. The second device, 21164 or EV5, was the first microprocessor to place a large secondary cache on chip. The third device, 21264 or EV6, was the first microprocessor to combine both high operating frequency and the more complicated out-of-order execution microarchitecture.

The production of Alpha chips was licensed to Samsung Electronics Company. Following the purchase of Digital by Compaq the majority of the Alpha products were placed with API NetWorks, Inc. (previously Alpha Processor Inc.), a private company funded by Samsung and Compaq. In October 2001 Microway became the exclusive sales and service provider of API NetWorks' Alpha-based product line.

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