DIGITASK Consultants, Inc.

CxO InSights™

Trends in information technology from the technologists at Digitask Consultants

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This issue's topic:
The Future of Proprietary CPUs

October Seminar:
Digitask is holding a free IT Consolidation seminar in NYC on October 27, 2003. If you are interested in attending, please register on our website http://www.digitask.com or give us a call at 212-682-6652.

Digitask's CxO HelpLine
For any specific questions, Digitask operates a confidential no cost help line. Questions can be mailed to CxOQ@digitask.com or called in at 212-682-6652. We will get back to you within 1 business day.

Congratulations on being selected to receive the introductory edition of Digitask Consultants' ***CxO InSights***. In future issues we will present concisely our high level views on trends and emerging technologies in the IT industry. We encourage you to send your input, questions and any technology you wish to be addressed in future issues to CxOInSights@Digitask.com. In this issue we are starting with server CPU technology and where we believe the industry is headed.

Server CPUs – Should they be proprietary or not?

Over the past 20+ years many CPU chip architectures have come and gone. Each time a manufacturer migrates to another CPU, IT managers have to decide when and where to migrate their applications. There is no choice, at some point SUN, IBM, HP, etc will no longer support the older systems. When the time comes to make the change, the IT manager needs to decide whether to stay with the same vendor or move to another.

In some cases the migration within a vendor's product line is relatively painless, e.g. Digital Equipment's VAX to Alpha migration, and in other cases, the migration is extremely difficult. Because of this, the cost of fabrication plants and other reasons many system manufacturers are migrating from their proprietary CPU's to de-facto industry standards such as Itanium by Intel and its competitor from AMD, Opteron.

Pros and Cons of Industry Standard CPU's

From a user perspective, there are many positive aspects of standard server architecture. Firstly, because the CPU chips are being used by more than a single manufacturer for more than one operating system, the impact of development and other fixed costs on the CPU cost are amortized over a much larger quantity than for proprietary chips, thus reducing individual chip cost. Some manufacturers are migrating large portions of their server line from proprietary chips to industry standard chips. In the process they are migrating their proprietary as well as their Microsoft operating systems to industry standard operating systems. This gives users of such machines the ability to switch from Windows servers to UNIX servers by just changing the operating system. In addition many of these systems are able to be carved up so that multiple operating systems from different manufacturers can be used on the server at the same time.

On the down side, there is the possibility that by using a single chip architecture, all machines using that CPU could be affected by a flaw in the chip. This happened in some early Pentium chips. It also happened in the chipsets on the motherboards which act as the glue tying the CPUs to the rest of the system.

Final Statement of Direction

Digitask believes the migration to a single hardware architecture allows companies to better use the hardware they purchase in ways which many not be apparent initially. For example, a system is purchased for Windows application based on today's needs. In a couple of years you need to increase processing capacity, and add additional applications on UNIX based operating systems such as Linux or HP-UX. Using industry standard servers supporting multiple operating systems, your initial system can run the UNIX application with, at most, the purchase of a new operating system.