

Making Hard Decisions Easy

Enterprises need to choose servers that fit their application requirements and data center deployment strategy

Can anyone deny that servers in enterprise networks are critical, and they form the backbone of the enterprise IT infrastructure.

Various parameters like cooling capacity, performance per watt, interoperability, RoI vis-a-vis a particular server technology are kept in mind while making the buying decision, as they are the ones that ensure productivity of any organization. Naturally, CIOs of enterprises have become very choosy in deciding servers for their enterprise's IT set up. Any investment on servers should be based on ramping up the back-end IT infrastructure that can scaled up according to the new requirements of the enterprise. Apart from these parameters, affordable price forms an integral part.

The telecom vertical is a major consumer of different server technologies, and demand is increasing day by day as SPs provide a range of value added services and carry a whole range of activities in OSS and BSS. Server vendors also come out with carrier grade server solutions to meet the increasing demand in server performance.

Server purchase decisions are either postponed or canceled as the market witnesses a slump. IDC forecasts that the market will see eight quarters of y-o-y revenue declines. The directive of every organization has now been changed to 'do more with less' as a result of the recession. So CIOs are forced to choose a solution that can do more with less investment.

Key Technology Trends

These troubled times in a way enhanced the need for virtualization. Virtualization has shown companies the effects

and benefits that could be achieved in terms of cost cutting by turning to this technology.

Many companies have turned to virtualization technologies for their servers and their data centers to simplify administration and to reduce management chores and operating costs, while maintaining reliability and safeguarding against disasters. Seeing the significant benefits virtualization delivers in those environments, companies are now looking to apply the same technology to their desktop computers.

Today, an increasing number of organizations have global aspirations. At the same time, they know they have to be nimble to garner competitive advantage because of the economic weather. According to VMware, an automated data center built on a virtualization platform lets enterprises respond to market dynamics faster and more efficiently than ever before.

The back-end enterprises, data centers, and banks prefer servers that have the capability to run multiple applications within a single system. Today enterprises are looking at consolidating all of their ap-



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TIPS FOR CIOs

- Mix and match is the mantra for server purchasing decision
- Consider proven IT usage models such as virtualization, consolidation, dense computing, etc
- Tap in the opportunity from companies looking at consolidating their IT infrastructure and co-locate their IT equipments in data centers
- Evaluate both tangible and intangible RoI
- Explore green solutions



applications into a single server that has the capability of partitioning; running multiple operating systems; running processors of different generations, frequencies, and architectures.

Virtual Clients

Virtual client solutions have advantages on data security, system manageability and TCO reduction over PC environment. The next generation VPCC Thin-Client system saves up to 62% system power consumption compared with normal PCs. It uses server based computing where the data is secure and protected on the server side and not exposed to misuse, theft, hacking—typical case in a PC scenario where data resides on the local disk of a PC.

Organizations have realized that acquiring desktop, software installation, software upgradation in addition to maintaining these systems is a costly and time-consuming business, and hence are shifting towards desktop virtualization. It's only been a few years since virtualization has become feasible for servers, but server virtualization is a hot topic in the world of information technology.

Rack systems will increasingly become part of any standard data center of enterprises. The blade server and appliance server have good growth potential in India in the SMB market place. A blade server houses multiple thin, modular electronic circuit boards/server blades which are often dedicated to a single application. As blade servers are designed to occupy less space, cabling is also simplified. Blade servers provide more processing power with less power consumption. With blade

servers, enterprises can experience as much as 85% reduction in cabling compared to the conventional 1U or tower servers. It also helps IT administrators save a lot of time on managing the infrastructure.

Serving the Green Cause

Another important aspect is the energy saving solution in server technologies. Energy savings are achieved in server, storage and other hardware by incorporating virtual infrastructure and adopting energy-saving components such as CPU, memory and disk units. Reducing the initial costs and power consumption leads to an increase in the overall RoI.

So green IT is an important agenda on every CIOs/CTOs list and various measures are being adopted towards it. As power and space saving technologies assume lot of importance owing to their cost saving benefits, server vendors will also offer power saving technologies for enterprises. These technologies provide optimum technology solutions for storage and backup, clustering, security, and virtualization. NEC's energy saving server, Eco Center leverages specially designed rack mounted hardware that combines advances in power efficiency, virtualization technology, and platform management capabilities to optimize power consumption.

Every organization has to assure a unique mix of server purchase requirements that include high performance, reliability, technology, equipment, etc,

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while working within constraints such as budget, floor space, power/thermal capacity and so on. Servers need to fit the application's requirements as well as the data center deployment strategy. Whether it is a SME or a large enterprise, CIOs should not go by marketing gimmicks for purchasing server solutions. Basically the solutions should be able to simplify operations, maximize the IT resources, integrate with other existing servers, and be cost effective too.

For CIOs, it is important that their enterprises are energy efficient and there is provision for expansion and scalability. Customers have a lot of data of different types, and the bulk of the information is stored on Microsoft Window servers or Linux/Unix/Proprietary hardware. It is critical to analyze the type of data before selecting the storage. e Windows Storage Server often provides the fastest performance for the dollars spent with the lowest acquisition cost as well as the lowest TCO for standard files that could include office documents, images, videos etc.

Specialized applications like databases, messaging (exchange) need higher performance block storage. A good storage solution leverages both the technologies to provide optimized storage for both 'file data' as well as 'block data'.

Additionally, CIOs need to consider proven IT usage models such as virtualization/consolidation, dense computing and technical computing, etc. When choosing a suitable hardware, it is worth considering which applications would the hardware be supporting—simple or complex. For instance, choosing a suitable processor will get the job done and may outperform the other processor depending on the applications.

BFSI, manufacturing, IT& ITeS, and the government are the main sectors driving the server market. Going forward, the government sector which has been least impacted by the economic slowdown is witnessing project based activities. Another strong vertical could be the retail sector for fueling the growth of the server technology demands.

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