



E. A. ELIAS
Managing Director,
APW President Systems Limited.

Q What trends are you observing in the datacenter space?

Many of the datacenters in enterprises are 15 to 20 years old. These datacenters do not have the space, the power availability, or the extra cooling required to handle today's computing needs. Hence, a lot of such datacenters are reaching end-of-life now, or will be, during the next few years.

Installation density is increasing as space constraints increase. The high capital cost associated with datacenters is driving the need to load more servers into 19" racks. Also, products such as the new blades and storage arrays need more complex power distribution and precision cooling solutions.

Q What is prompting the slow but steadily increasing demand for quality in enclosure systems?

Enclosure systems have earlier been considered as merely structures for housing networking equipment in the typical DC environment, and hence most users were not concerned about quality, design, or features. The common view was that as long as the cabinets did not collapse due to the weight of the equipment in them, they were acceptable. Users are increasingly beginning to look at 19" cabinets to provide a total operating environment for their core IT equipment. Therefore, they expect them to be intelligently designed to provide flexibility, security, energy optimization and scalability for their IT infrastructure needs.

RETHINKING DATACENTER APPROACH FOR EFFICIENCY

Today's datacenters are more than just rooms containing servers. They include solutions such as access control, environmental monitoring, performance management, etc.

Various flexible cooling concepts are being engineered at the rack level to effectively handle the ever increasing heat loads - from passive airflow to active liquid cooling, with matching heat exchangers.

Q How is your business model organized to resolve datacenter management issues for your clients?

Our focus has shifted from being merely a supplier of quality enclosures to a company that provides complete datacenter management solutions. This reflects in our new tagline as well, which now reads "Solutions beyond enclosures". We have strategic alliances with technology partners to provide complete IT infrastructure management solutions to our customers. These include IT operations management, access control and monitoring, datacenter environmental monitoring, performance management, advanced datacenter thermal management and energy optimization.

Q With the emergence of new datacenter concepts like datacenter in a box or hosted (outsourced datacenter), what do you think is the value for companies that opt to build and maintain their datacenters in-house?

In-house datacenters have been around for many decades, so they offer the known benefits of full security and proven technologies. Outsourced datacenters would mean completely (or partly) 'externalizing' the datacenter functions.

Cloud computing solutions are competing with traditional, in-house datacenter facilities. But they still have to address issues of data security. However many of the SMEs prefer these solutions as they are cost efficient.

Portable DCs are still in an experimental stage, with concepts like the Sun Microsystems' (now IBM) 'Black Box' being tried at some sites. The technology of packaging entire datacenters into boxes

has to mature and be proved before it can be considered by companies.

APW President provides solutions to both in-house as well as externally managed datacenters.

Q What should IT teams bear in mind when building their own datacenters? For instance, what features should they look for in a rack?

Today the main reason for the high operating costs of a datacenter is due to the high energy bills, out of which almost 55-60% is on account of the improper airflow and cooling systems. Most datacenters are operating at a PUE of over 2.5 when they should be striving to reach a PUE of 1.6 or better.

IT teams need to move ahead of the traditional processes and need to think differently about their datacenters. The datacentre is becoming more dynamic, where it needs to address a variety of evolving technical, financial and environmental demands. It needs to be more effective in terms of the cost, space utilization and energy conservation with round-the-clock availability.

While selecting enclosures, the following parameters need to be considered: robust construction, load bearing capacity of the rack, ease of installation, security, multi-vendor compatibility and optimized air flow.

If the decision is to build an in-house datacenter facility, the rack layouts should be synchronized with the overall datacenter space plan, keeping the key objectives of energy costs and space optimization in mind. ♦

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Solutions beyond enclosures