Amid Data Center Infrastructure Upheaval, Racks Stand Tall

Written by Elizabeth Cruz
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By Elizabeth Cruz, IHS Senior Analyst, Data Centers, Cloud & IT Infrastructure

In a world where Google, Amazon, and Facebook are designing their own servers and buying direct from Asian manufacturers, suppliers of all data center equipment are rightfully a little worried about their place in the future supply chain.

If you look at the main sectors of the data center infrastructure market - cooling, UPS, rack power distribution, and IT cabinets-you see that everything except racks seems to have a major disruptive trend or technology that could really threaten market growth. In contrast, racks continue to carry-on with no major road blocks on the horizon.

Traditional cooling companies are worried about free, or compressor-less, cooling technologies taking over. UPS companies are apprehensive about decreasing redundancy and the adoption of direct current in the data center. Rack PDU companies are watchful of both server and branch circuit level power metering.

In contrast, rack manufacturers are currently not faced with any truly competitive products or design options. Even in the most forward thinking, innovative, data centers, racks and cabinets are still abundant. The biggest current threat is the Open Compute Project which is utilizing lower cost open frame racks as opposed to the fully enclosed cabinets that are the norm in most data centers. However, in our most recent round of research, it was found that this is an extremely small, niche, part of the market as it currently stands. Our research actually found that enclosures are gaining share over open frame, now accounting for nearly 90% of all unit

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shipments of racks.

There are three unique factors that drive revenue growth in the IT racks market: customization of enclosures through unique design demands or pre-configuration requests, the need for air flow management requiring the purchase of accessories and enclosed cabinets over open frame racks, and a demand for taller, wider, and deeper enclosures. All three of these factors increase the average unit price of racks, which helps compensate for any decrease in shipments that arise from virtualisation and server consolidation (a factor that is negatively affecting most infrastructure equipment currently). So while racks may not be the edgiest piece of equipment in the data center, it has proven to be a steady, reliable source of revenue for many suppliers.

Liz Cruz is a senior analyst with the IHS information technology team. Since joining the company she has developed reports on the markets for containerized data centers, IT racks and enclosures, uninterruptible power supplies, service and support of UPS, and a focused analysis of the data center market in the Middle East and Africa.