

Three Basic Considerations That Ensure Hyperscale Success

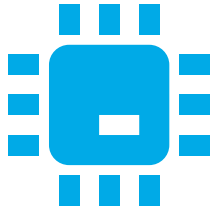
With the demands for a remotely connected life firmly taking root, the rapidly growing hyperscale segment has become a category—and necessity—all its own.

Hyperscale operations have evolved considerably during the past decade. To better support a growing number of customers and customer data, hyperscale companies—mainly in the e-commerce, cloud services and social media markets—have recognized the need to be agile, flexible and scalable.

When it comes to infrastructure specifically, hyperscalers tend to address their needs differently. For example:



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Chip makers and server manufacturers were asked to simplify and add more processing power to equipment.



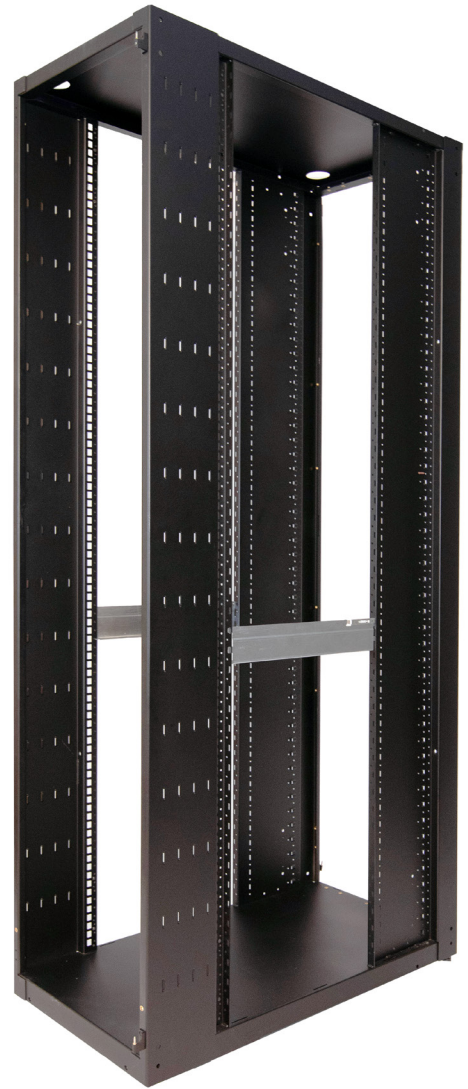
Rack infrastructure was redesigned to match the advanced, power-hungry equipment needed to keep pace with unprecedented demand.



To simplify the supply chain, hyperscalers started working with specialized integrators that could provide racks stacked with IT equipment ready for commission and deployment.



More cost-effective and energy-efficient ways to cool and operate hyperscale data centers were developed and implemented.



Given these unique circumstances, hyperscale companies and information and communications technology (ICT) manufacturers must collaborate to ensure fast, scalable and successful deployments.

Chatsworth Products (CPI), a provider of power management and ICT infrastructure solutions for the data center and edge computing markets, has developed a three-pronged approach to help hyperscalers achieve their goals.



1. Using a Design-Build Manufacturing Model as a Better Fit for Hyperscale Buildout

The global footprint, massive scale and tight project timelines of hyperscale buildouts demand rapid engineering, prototyping and customization.

While discrete manufacturers can build a product according to any given specification, design-build manufacturers have made this collaborative concept-to-production process a core part of their DNA, enabling them to provide a deeper understanding of customer needs and pain points.

This first-hand experience means many design-build manufacturers become experts in achieving or even improving upon the design intent, based on that experience and any project-specific practical limitations. Some manufacturers are also able to provide a complete, kitted solution, with preinstalled components that further streamline the process and allow hyperscale integrators to keep focus on their core services and IT equipment integration.

CPI recommends:

Work with manufacturers that have perfected design-build operations, which typically means they are better suited to adapt to any critical last-minute changes. This is often the most efficient and expedient path to meeting the scalability requirements that hyperscale data center operators crave.

2. Collaborating on Rack Design to Produce a Superior Solution All Around

Typical hyperscale rack designs either come from standardized specifications, such as the Open Compute Project™, or from highly customized designs that only a select few manufacturers are able to accommodate into their routine engineering, design, prototyping and manufacturing processes and operations.

But few hyperscalers have realized there is an option that combines the best of both worlds.

CPI recommends:

Collaboration between manufacturers, hyperscale operators and their systems integrators (or integration service providers) creates an upfront solution that not only meets specifications around equipment loading, cable management, power and cooling, but also addresses how the equipment fits into the operator's overall data center ecosystem.

3. Going Global

As the search for a rack manufacturer that is prepared to guarantee a steady, robust and responsive supply chain gets narrower, it is important to consider selecting partners capable of accommodating purpose-built designs and those that also provide global availability and support.

To hyperscale data center operators, these attributes mean improved product availability, service and support within region and ultimately faster, more predictable and consistent new data center buildouts.

CPI recommends:

Select a rack manufacturer that's proven to provide local, regional and global capabilities. This is the easiest, most reliable way for hyperscalers to fast-track their deployments.

To learn more about CPI hyperscale solutions, visit chatsworth.com/hyperscale.