CoreSite
An American Tower Company

Instant and On-Demand

Leading online retailer scales compute and data storage on demand with CoreSite cloud connectivity solutions to support spikes in customer traffic without impacting performance or the customer experience

The Challenge

TRADING SPIKE FOR SCALE

Ecommerce is big business. As consumers continue to transition from conventional shopping in brick-and-mortar stores to online ones, the online retailing industry will only continue to grow in size and scale.

One primary contributor to the industry's growth is a well-known online home goods retailer whose business grew from startup to stalwart in just a decade. Today, the retailer sports a whopping seven-million-product inventory, from more than 10,000 suppliers, and an annual growth rate of around 40%. The company's business model of contracting only with wholesalers and shipping directly to consumers has been a viable answer to the worrisome dynamics of today's retail industry. But it also requires a flexible and powerful infrastructure for handling more data, speeding up transactions and creating better customer experiences that are necessary for sustainable success.

Specifically, the company needed to ensure its compute infrastructure could meet not only the retailer's organic online traffic growth but also the periodic disruptive spikes that occurred during seasonal sales or marketing campaigns. And when those spikes happened, the company needed instant, on-demand scale of compute and data storage without having to pre-pay for capacity they didn't need at other times of the year.

SEARCHING FOR FLEXIBLE OPTIONS

A huge inventory and a substantial annual growth rate may be good for the company's bottom line, but those occasional bursts in sales created a major hindrance behind the scenes. Over the years, the company had been managing

Online Retailer
Case Study at a Glance

CHALLENGE
- Scaling effectively to keep up with a staggering 40% annual growth and a living inventory of seven million products
- Processing transactions faster and more smoothly even during spikes in customer traffic
- Right-sizing deployment of compute capacity and data storage
- Gaining reliable, cost-effective access to cloud providers to handle additional compute capacity when needed

SOLUTION
- The online retailer is using CoreSite's colocation solutions to support short- and long-term business growth and scalability through a combination of on-premises, colocation infrastructure and AWS Direct Connect, enabling low latency connectivity, high-speed transactions and a satisfactory end-user experience

RESULTS
- Saw the highest revenue generation in one day of $140 million, without incurring latency or performance issues
- Achieved low-latency connections for faster transaction processing and a smoother user experience on the website
- Enhanced a hybrid environment through colocation and connections to cloud providers
- Solidified a data center partnership and roadmap to grow and scale as needed

its own data center on-site, but decided to focus instead on its core business and colocate its infrastructure operations to a data center provider.

The data center is the central ingestion point for the company's transactions. All product orders coming in from the website, mobile app or partner sites are routed to the data center for processing and to initiate the fulfillment process. However, given the fluctuation in traffic, the company built its environment to operate at 15-20% of its total capacity daily, using the remaining pre-paid 80% as overflow for high-volume events like Cyber Monday or special sales events throughout the year.

Though the infrastructure was designed to support these spikes, it was extremely inefficient and costly, with more than 100 cabinets of physical infrastructure lying idle for most of the year, costing tens of millions of dollars in upfront investment and ongoing maintenance.

Similarly, simply moving all data operations to the cloud wasn't an ideal solution either. Despite built-in flexibility and scalability native to cloud computing, an all-cloud strategy would have been equally as costly, when factoring in bandwidth and data transport costs along with the potential impact of performance delays from higher-latency connections.

The Solution

SUPERCHARGING SCALE WITH COLOCATION AND CONNECTIVITY
Seeking data center options that could enable expansion in both physical floorspace and cloud deployments, the company worked with CoreSite to create an efficient and cost-effective hybrid environment. Combining CoreSite's colocation solutions with direct connections to cloud providers delivers the agility and scale a volatile retail business demands, while keeping costs in check.

Unlike other data center solution providers, CoreSite's transparent future growth strategy and amenable contract options gives the company all the flexibility it needs to more effectively address its day-to-day operational needs while planning for future growth. In particular, CoreSite offers flexible deployment options from cabinet, cage or private suite to fit virtually any specific or changing business need.

The configurable and extensible arrays are a far cry from the prescriptive, constrained models that on-premises data centers provide, and instead make it possible to create a predictable foundation for long-term growth. Plus, CoreSite's hyperconnected data centers feature direct private connections to leading cloud providers from within the same facility, enabling instant scale without the latency or performance concerns.

Now, the company can operate its physical infrastructure at 80% daily utilization, using the remaining 20% for overflow and tapping into cloud resources via direct connectivity to a leading cloud provider for additional capacity on-demand, should any traffic spikes occur.

Customer Experience and Benefits

SUSTAINABLE GROWTH
Partnering with CoreSite has fundamentally changed how the online retailer plans and manages its core business functions. CoreSite's data centers support hybrid cloud environments that allow the company to operate closer to 100% without wasted capacity and grow its business strategically — whether for a short-term event or to enact a long-term strategy — without investing in additional cages, a whole floor or even an entirely new data center.

The ability to right-size physical infrastructure and directly connect to cloud providers for additional capacity has already paid significant dividends in just its first year. During a recent super sale, the company generated more revenue — $140 million — in one day than ever before without suffering performance issues related to latency, downtime or customer experience complaints.

The seamless experience is a microcosm of the agility and newfound capabilities the company has for scaling its business in real-time to help it remain productive and responsive to shifting customer expectations, performance requirements and industry maneuvers.

With CoreSite, the company can continue to build a powerful hybrid infrastructure supported by space and equipment flexibility, expansion of power and cooling, direct access to cloud resources, and a team of experts who can foresee and advise on new and cost-effective ways to achieve business agility and productivity. As a result, the company is able to deliver new levels of service and innovation to customers and ensure greater customer loyalty.

Find out more.
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CoreSite.com | +1 866.777.CORE | Info@CoreSite.com