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CoreSite

COLOPEOPLE AND PAPERSPACE
CAGE COLOCATION, CROSS CONNECTS, REMOTE HANDS

COLOPEOPLE.com
Colocation and Cloud Services

Paperspace

Pioneer in GPU-accelerated cloud computing turns to CoreSite for building a scalable, reliable, and resilient global network.

SEEING IS **BELIEVING**

THE CHALLENGE

Knowing your limits

Cloud computing revolutionized the way organizations and individuals ingest, process, and use information. But sometimes it's not enough. Today, companies of all kinds—gaming services, financial institutions, visual effects studios, and even artificial intelligence shops are looking for new ways to manage and scale their businesses beyond traditional cloud computing and CPU-driven environments.

A pioneer in Graphic Processing Unit (GPU)-accelerated cloud computing, Paperspace offers a range of virtual desktops, rendering, and on-demand web services to help both companies and individuals process enormous amounts of information and graphics faster and more efficiently. In just a few years, the company has built a rapidly growing business spanning North America and Europe, attracting an array of startups and enterprises alike because of its revolutionary approach to accessing limitless cloud computing resources from any device or platform.

But delivering high-powered cloud computing and graphics support to a customer base growing at warp speed isn't as easy as flipping a switch. *"Processing and delivering visual data quickly and reliably requires an enormous amount of space, power, and the right locations to minimize latency,"* says Dan Kobran, co-founder of Paperspace. *"The only way to accomplish that is to colocate in a data center with those capabilities. However, managing infrastructure isn't our core competency and we knew we needed some help finding the right place to call home and moving in."*

Navigating a complex landscape to find a new home

Paperspace began building its cloud in earnest upon its founding 2014, but the small team was just getting started and couldn't sufficiently balance meeting immediate growth needs and planning longer-term scaling. Help came quickly in the form of COLOpeople, a managed IT services company specializing in colocation, data center selection, and migration services for startups and growing companies like Paperspace.

"We were introduced by a mutual colleague who told us about this incredible innovative company who'd already outgrown their initial infrastructure," says Rick Stenberg, co-founder of COLOpeople. *"They needed immediate support for their existing business but also a strong, well-organized plan for handling their explosive growth, which is our specialty."*

As one of the first cloud providers to focus on GPU-accelerated cloud solutions, Paperspace was operating in uncharted territory. The demand for GPUs across all types of apps and in every vertical continues to outpace the number of providers in the market, creating a huge market opportunity for the company.

"Being one of the first companies in the space has jump-started our growth and created a distinct need for being in the right locations to ensure performance and low latency for customers," Kobran says. *"We needed to be strategically located in the U.S. and Europe, and have the ability to spin up new servers and sites almost instantly as demand grew."*

Site selection and rapid deployment aren't unique demands for a cloud services provider, but Stenberg says there were other, more pressing needs that made finding Paperspace's data center search more complex. In particular, GPU operations require enormous power demands not present in traditional hosting, making the search for data centers with the necessary power density, scale, and reliable connectivity even more challenging.

"A lot of data centers would love to host a service like Paperspace's, but can't keep up with the density requirements because their buildings lack adequate cooling for the heat the machines

"In our business, speed and reliability are everything. CoreSite's NY2 facility is just minutes from Manhattan, putting us right in the middle of the market and businesses we serve for the lowest latency connectivity possible and since the facility is super high-density, we knew we'd have all the power and space we'd need to spread out and stay there a long time."

Dan Kobran, co-founder, Paperspace

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"CoreSite and Interxion have been so well aligned with our strategic plans that they already had contingency and growth plans ready to go. They've become an integral part of our business, an extension of our team, and the partners we'd hoped to find."

Dan Kobran, co-founder, Paperspace

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produce. They'd literally burn up trying to support that level of power," Stenberg says. *"Add to it essential requirements like reliable connectivity and a stable network backbone, and the number of suitable data center options becomes quite small."*

THE SOLUTION

Building a multi-facility, multi-continent network footprint

COLOpeople prides itself on keeping up to date on all things data center, including the skills and capabilities of each provider, common cost structures, and even the frequency or severity of outages and other interruptions.

With years of experience in matching emerging businesses with the right data center partners, COLOpeople went immediately to work connecting Paperspace with full-service data center partners. The team selected CoreSite's NY2 data center to host its North American operations and mirrored its U.S. deployment in Europe at Interxion's Amsterdam facility as part of a strategic alliance between the two data center providers.

"We only work with the best data centers in the world. They're the ones with the modern facilities, intelligent teams, and the ability to scale with a company like Paperspace who may grow as fast as a rack per week," Stenberg says. *"At the same time, we wanted a service partner who'd be flexible and willing to be more creative in addressing Paperspace's needs as they evolved."*

According to Kobran, Paperspace chose CoreSite because of its convenient data center locations, ample room to expand, and flexible cost structure to support the company's long-term objectives. With CoreSite solutions, Paperspace has the configuration flexibility to add new physical infrastructure in a high-density environment and low-latency cross connections it needs to fuel and sustain its rapid growth without worrying about having adequate space or power.

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CUSTOMER EXPERIENCE AND BENEFITS

Breaking the mold of cookie-cutter colocation

CoreSite's expansive network of modern data centers — spanning nearly a dozen strategic locations across the U.S. — and partnership with Interxion to support a presence in Europe give Paperspace multiple options for building a resilient and redundant network as the foundation of its growing business. The two data center providers share a common approach to colocation services, building high-density data centers with lower power and cooling costs located in geographies with sufficient fiber already installed and higher concentrations of prospective partners or customers.

"Like CoreSite, Interxion is a premium provider that's eminently capable of keeping pace with GPU cloud's performance and connectivity requirements, and Paperspace's need for easy scalability," says Stenberg. *"What's more, CoreSite and Interxion have an informal partnership that lets them meet customers' global needs consistently and seamlessly."*

After the initial build out in CoreSite's NY2 facility came online, Paperspace expanded its footprint to one of CoreSite's Silicon Valley centers as a failover facility and to leverage the location in the heart of North America's technology core. Meantime, COLOPeople worked with Interxion to establish a similar deployment in Amsterdam, taking advantage of the city's robust data center offerings and ideal central location for serving Europe, which is adopting GPU-accelerated services at breakneck speed.

More importantly, the entire operation is supported by a talented staff of skilled industry veterans that keep everything running at peak performance while planning for both Paperspace's immediate and longer term needs.

"One of the biggest advantages to working with CoreSite is the staff's understanding of its customers' individual businesses and the flexibility to create custom solutions instead of shoehorning customers into a cookie-cutter model," Stenberg says. *"They went out of their way to handle non-standard requests to keep everything up and running when most data centers would have given an excuse for why they couldn't help."*

Kobran says agility and a high level of operational flexibility are crucial for his company's continued success because of how unpredictable business growth can be. *"We maxed out our capacity in one center in less than a month, so things move more quickly for us than with other companies,"* he says. *"CoreSite and Interxion have been so well aligned with our strategic plans that they already had contingency and growth plans ready to go. They've become an integral part of our business, an extension of our team, and the partners we'd hoped to find."*

STIGROUP CASE STUDY AT A GLANCE

Challenge

- Building a global network of high-density, scalable data centers

- Finding cost effective colocation space with power and cooling to support resource-intensive computing

- Reducing network latency for improved service to customers and better end user experiences

Solution

Paperspace, working with COLOpeople, is using CoreSite's cage colocation, remote hands, and cross connect solutions in NY2 and Santa Clara, along with Interxion's colocation space in Amsterdam to create a high-performance, stable, and redundant network to deliver low-latency cloud computing services to a global customer base.

Results

- Global colocation with data centers in three high-density, customer-rich markets for ultra-low latency service

- Established a global, high-performance footprint to ensure greater performance, reliability, and disaster protection for customer deployments

- Gained operational agility by colocating in high-density data centers with adequate power and cooling and easily configurable cages for adding infrastructure as the business grows

- Improved financial flexibility and cost management through a pay-as-you-go cost model instead of pre-purchasing space and power that may go unused.

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Rick Stenberg, co-founder, COLOpeople

ABOUT COLOpeople

COLOpeople helps organizations find and manage quality data centers and cloud providers. An outsourced IT solutions firm, COLOpeople helps customers navigate the complex search, negotiation, and deployment process, supporting customers every step of the way to ensure they get the right solution at the right price. Founded in 2010, COLOpeople is a one-stop-shop for cloud, IP, colocation, managed or dedicated servers, and other mission-critical solutions.

ABOUT Paperspace

Paperspace offers a range of products powering everything from virtual desktops for businesses, high-end workstations for VFX studios, Machine Learning and infrastructure for startups, and gaming rigs for individuals.

ABOUT Interxion

Interxion is a leading provider of carrier and cloud-neutral colocation data centre services in Europe, serving a wide range of customers through 48 data centres in 11 European countries. Interxion's uniformly designed, energy efficient data centres offer customers extensive security and uptime for their mission-critical applications.

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