WHITE PAPER

Data Centers That Fit

BUILD TO SUIT: THE BEST OPTION YOU HAVEN'T THOUGHT OF

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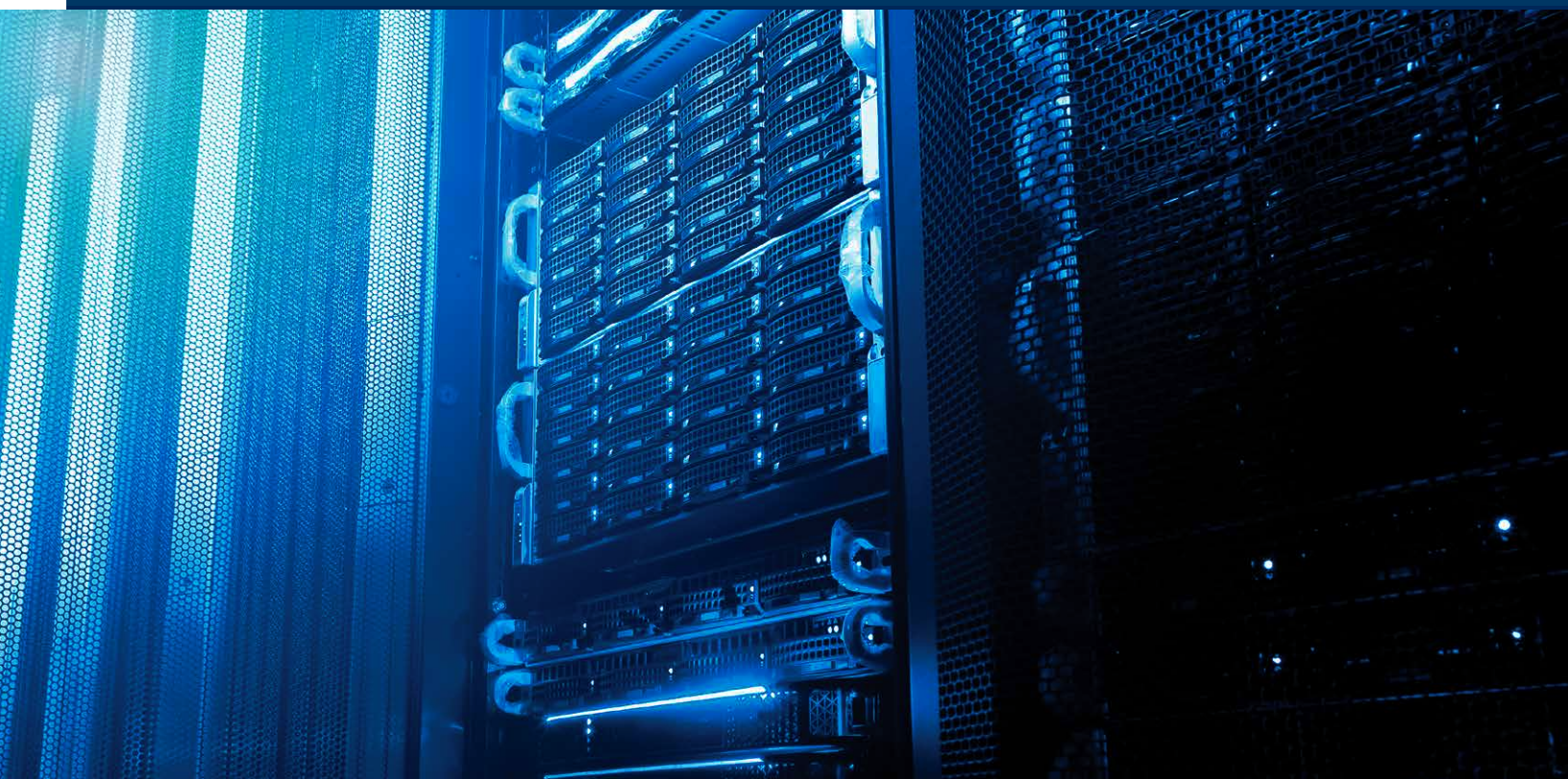
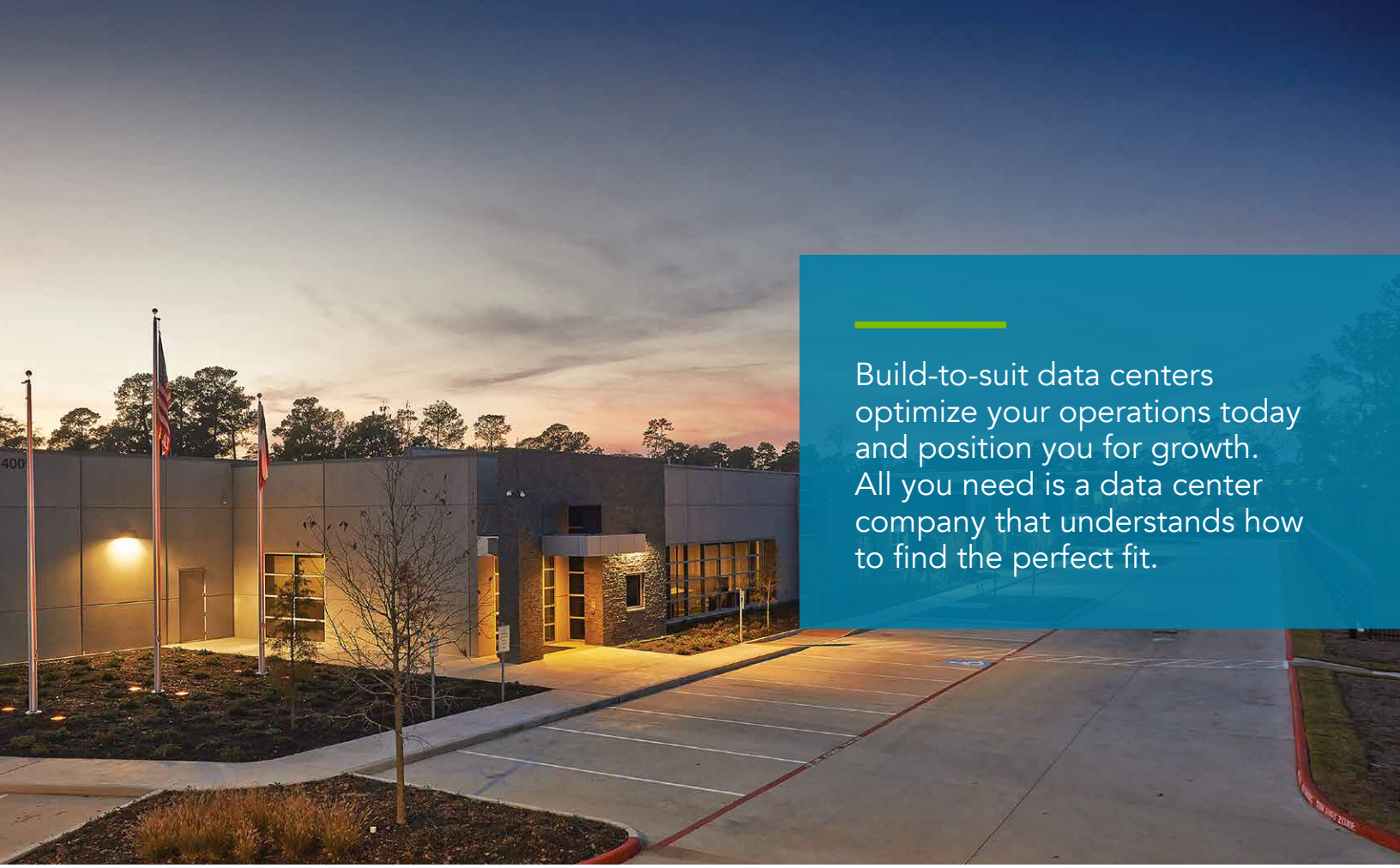
STREAM DATA CENTERS





Build-to-suit data centers optimize your operations today and position you for growth. All you need is a data center company that understands how to find the perfect fit.

For businesses in this technology-driven economy, one of two things is true: you need to expand your data center now, or you need to plan for the time when you do. You may already be looking at the advantages of colocation solutions, or even considering building your own data center. But a third option — one that might not occur to you — could be the best of both worlds. Build-to-suit data centers can be more cost-effective and future-proof than other expansion solutions.

THE CUSTOMIZED SOLUTION TO YOUR DATA CENTER DILEMMA

The growing demands of big data and complex systems increase the need for secure, scalable data center expansion. Thinking through options brings up concerns of privacy, capacity, control, reliability and more. Colocation may be an attractive option on the surface, but will sharing a facility allow you to expand when you need to? What will protect your data from colocating companies? How can you maintain control when other companies need control, too? Building the data center yourself may solve those problems, but how can you manage costs? How can you focus on your primary business while designing and building a data center? In fact, how do you even start finding the best location, much less start developing an optimal infrastructure and operating environment?

The fact is, the more time and resources you spend on figuring out physical solutions like capacity, privacy and security, the less time you can devote to your core business — and your customers. Fortunately, an experienced data center developer can design, build and support a cost-efficient data center that fits your needs. Stream Data Centers understands how to overcome capacity constraints that can result from your increasingly complex IT strategy. As your partner, we can design, build and support a cost-efficient data center that fits, no matter how much you need to expand.

DESIGNING FOR SUCCESS

Stream build-to-suit data centers address your growing pains with a strategy that adheres to these simple parameters:

Capacity in every category
An experienced data center developer maintains availability of ample land, space and power to balance supply and demand. You have room to operate and grow — in terms of capacity as well as physical space.

Performance standards
Data center professionals understand the importance of establishing and maintaining key performance indicators (KPIs) to ensure efficiency, safety, quality metrics and other standards.

Speed to market
Development of a data center that fits requires having relationships with loyal partners in a dependable supply chain in order to meet timing and delivery expectations.

Anticipation of market needs
Understanding industry growth includes having construction-ready sites available and a proven process for immediate build-to-suit or modification, ensuring that no customers have to start data center projects from scratch.

Attention and response to customer concerns
The simple act of listening to customers lets developers deliver the right product at the right time, with alignment across all design and construction channels.

How to know you're outgrowing your data center:

- **Insufficient data capacity:** Having enough data center "space" is not just about actual data storage, but room to handle data analysis. More files and types of files require the capacity to use them. At the same time, you don't need a data center designed for more than you'll ever need. A custom solution is often a wise option.
- **Poor performance:** The need for data on demand means that your infrastructure must be able to handle real-time data analysis. Increased latency is a sign that you need a change. Your data can be secure, yet not useful.
- **Insufficient access:** As your business finds new ways to use data, different users may wish to cross-reference or share it. And the global economy means you need 24/7 access around the world. If you find yourself unable to meet the demands on your data, wherever and whenever they occur, you need to expand.
- **Security concerns:** You may be confident that your data itself is secure, but to ensure compliance with changing regulations and oversight, you need scalable infrastructure.
- **Maintenance cost:** As infrastructure fluctuates, so do expenses. Effective infrastructure planning, including the expansion or consolidation of data center facilities supported by equipment upgrades, can greatly enhance operational efficiency.

TO BUILD OR NOT TO BUILD

Finding the right option for increasing data center capacity is largely a matter of strategy. Leasing space from a colocation provider allows companies to own their equipment, while the data center provider manages the staff to operate and maintain the facility — addressing cooling, power, physical security, flood protection and other building-related concerns. For some Stream customers, colocation is a great choice, and our flexibility in meeting your needs in terms of location and design is a benefit of our years of colocation experience.

If you build the data center yourself, you acquire property, construct the facility, and equip and operate it. Perhaps you believe that do-it-yourself is the only way to ensure the space, security, control and room to grow that your company needs. But unless you are already in the real estate business, you may be in for a struggle. Selecting the best site for a data center requires much more than finding the optimal location. You need reliable, cost-efficient utilities and fiber, reasonable land and construction costs, moderate taxes and other strategic features. Even if you've built your own data centers in the past, you may find that the evolution of digital deployment has changed the game so radically that the time has come to reconsider your strategy.

Build-to-suit data centers are designed and built to fit your needs, customized from the ground up according to your specifications. This option offers you the ability to choose the location, size and design that meets your requirements — using operating expenses rather than capital expenditures. Build-to-suit is the investor-friendly option that gives you the data center you want while conserving capital funds for your core business. You'll have the space and capacity you need now, with the ability to scale up quickly as you grow — without paying for space and power you don't use. And at every step, you maintain security, privacy and control.

BUILT TO FIT YOUR BUSINESS

Enterprise users and cloud providers present contrasting design and construction requirements for data centers. An experienced data center developer not only recognizes these differences, but also uses them to inform the conversation around each customer's build-to-suit priorities.

Our build-to-suit competency leverages proven development strategies to quickly deliver cost-efficient data centers that meet each customer's unique requirements. From our stringent site selection methodology to our industry-leading team of design and construction professionals and equipment manufacturers, Stream's supply chain is optimized for quality and value.

ENTERPRISE DATA CENTERS

Large companies want master-planned, risk-averse data centers, away from flight paths, rail lines, industrial areas and the flood plain. They want stringent site and building security with independent infrastructure, located in a purpose-based facility. The security protocol starts at the very perimeter of the site, with a secure entrance and increasingly restricted levels of accessibility all the way to the cage. Traditional enterprises tend to look to specific fiber providers to deliver WAN using a minimal footprint inside the data center. As these users add bandwidth, they look to solutions like dark fiber and interconnection to control costs.

Enterprise users typically have varying density requirements in their IT footprints. Some may use less power throughout their data center, so the kilowatts-per-cabinet ratio is relatively lower. Other companies may run high-density deployments with a need for high-performance computing and ample power. These companies also often prefer diverse power feeds from two separate transformers or two substations with different transmission feeds.

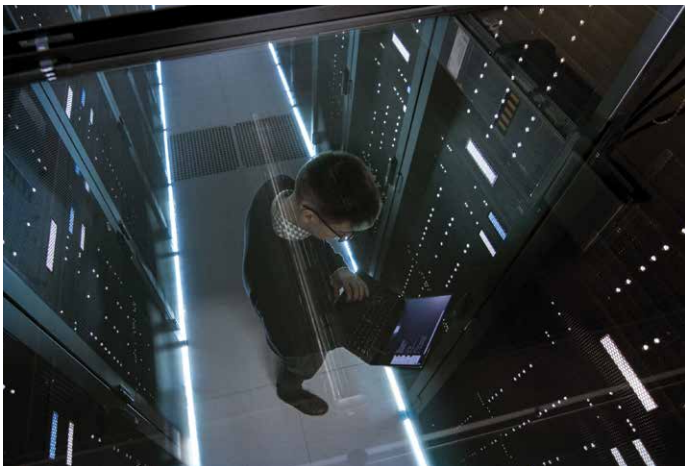
Most enterprise customers tend to scale deployment according to specific business requirements, so they generally scale at a slower rate than cloud providers. As diverse as their needs may be, these customers need a data center product that is scalable over a long time period, to meet their challenges today and in the future.

HYPERSCALE DATA CENTERS

Cloud providers are experiencing unprecedented growth that is outpacing what they can accommodate in their existing data centers. A hyperscale data center requires computing, networking and storage scalability to allow the data center to grow quickly with demand. Hyperscale cloud customers have, in most cases, built-in redundancy through multiple data center locations, making them more risk tolerant than enterprise customers. Proximity to power is critical and often drives site selection. They often look to new technologies and design options that reduce time to market as well as costs. Many use modular designs for electrical and mechanical systems rather than the containerized stick-built approach preferred by enterprise users.

Since hyperscale cloud users tie back to interconnection locations via their own fiber or dark fiber, they may have little need for multiple service providers in the facility. The space and power demands, however, may be beyond what even enterprise customers require.

Cloud providers require large-scale deployments and specific timelines, fast-tracked for immediate business expansion. These users typically deploy power capacity immediately, but they still require scalability options. The challenge in building hyperscale data centers is to provide speed and scale to support an ever-changing IT roadmap.



A CLOSER LOOK AT STREAM BUILD-TO-SUIT SOLUTIONS

Stream meets the challenges of differing data center requirements by maintaining a proven stable of supply chain resources. We offer best-in-class data center products that include Hyperscale Data Centers, Ready-to-Fit™ Powered Shells, Private Data Center™ suites, flexible colocation environments, and build-to-suit data centers that combine our proven design methodology with customer-centric solutions to deliver a hybrid product that meets every need. Stream offers greenfield builds as well as full or partial renovations of existing facilities.

BUILDING A BETTER DATA CENTER

Stream build-to-suit solutions offer several key advantages:

- **Design and planning expertise:** Stream's experienced data center consultants evaluate your current data center facilities and infrastructure requirements, develop a cost model, and provide a comprehensive implementation and migration strategy. We invest in operational leadership, training, tools and systems to mitigate human error and maintain uptime in our data centers, while delivering premium service and optimized value.

- **A tailored fit:** You'll have optimized space, power, cooling, connectivity and scalability without paying for space you don't yet need. And when you need more, you can scale up quickly. We have the industry knowledge to help you forecast demand and have the right capacity at the right time.

- **Data center specialists:** Stream offers turnkey data center development, colocation and operation. As one of the few data center providers with a development arm, we offer complete flexibility in geographic location and site selection. Customization starts with the ideal site for your needs.

- **Outstanding security and control:** Build-to-suit data centers employ proven critical security protocols to reduce risk and protect your assets.

- **Faster time to market at lower cost:** Data center development and construction is our core business, so we know how to streamline the process and reduce costs in ways you won't find in less experienced providers.

- **Industry knowledge:** Stream supports a variety of customers in various industries, drawing upon our understanding of highly regulated businesses. In addition to building to Uptime Institute standards, Stream designs our customers' facilities to comply with rigorous standards set by trade groups and certifying organizations, while maintaining relevant certifications and attestations.

- **Best practices:** We employ industry best practices, quality standards, systems and protocol developed over years of experience.

- **Flexibility at every stage:** Our goal is to give you what you need in every facet of development and construction. We won't try to steer you toward a specific solution or sell you on an existing location. "Built to suit" means built to suit you, not us. And our flexibility extends to after the build, as well. If you want to take over ownership and/or operation after construction, no problem.

THE KINDER, GENTLER DATA CENTER COMPANY

Stream is known throughout the industry for being easy to work with — just ask our customers. You may find other companies with similar capabilities, but you won't find a nicer group of people. And you will deal directly with Stream decision-makers from start to finish. The people you engage with initially stay involved throughout the process. We look beyond the project to a long-term relationship.

DOES YOUR DATA CENTER FIT?

If you have outgrown your data center — or can feel it stretching at the seams — Stream is ready to deliver a built-to-suit data center that fits you perfectly. Our proven methodology gives us the experience to deliver a tailored product that meets your requirements efficiently and cost-effectively. A partnership with Stream means that we listen to what you want and deliver a made-to-order data center that meets your needs today with scalability for the future. With Stream, building a better data center starts with you. And the end product will be a perfect fit.

ABOUT THE AUTHOR

CHRIS KINCAID Senior Vice President — Design & Construction

Chris Kincaid is senior vice president of design and construction, overseeing the development of the Stream Data Centers product portfolio of hyperscale data centers, Private Data Center™ facilities and Ready-to-Fit™ powered shells. Chris has over 20 years of experience in project management services, with 14 of those years focused on mission-critical data center construction and commissioning.

STREAM DATA CENTERS

Stream Data Centers has been providing premium data center solutions and optimized value to Fortune 500 companies since 1999. To date, Stream has acquired and developed more than 2 million square feet of data center space nationally, representing more than 200 megawatts of power.

Stream is dedicated to improving the data center experience through exceptional people and service, developing and operating highly resilient, scalable and efficient data centers. Stream's product offerings include fully commissioned hyperscale data centers, Private Data Center™ suites, Ready-to-Fit™ powered shells, build-to-suit Infrastructure and Retail colocation environments — all with immediate connection to network carriers and public cloud providers.

Stream Data Centers is a subsidiary of Stream Realty Partners, LP, a full-service commercial real estate investment, development and services company. Founded in 1996, Stream Realty has a staff of more than 750 real estate professionals with offices in 12 markets across the nation. The company manages 158 million square feet of commercial properties and completes over $2.9 billion in transactions annually.

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FOR MORE INFORMATION

To learn more about Stream build-to-suit data centers, please contact us:
www.streamdatacenters.com/contact-sdc or **sales@streamdatacenters.com**

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www.streamdatacenters.com