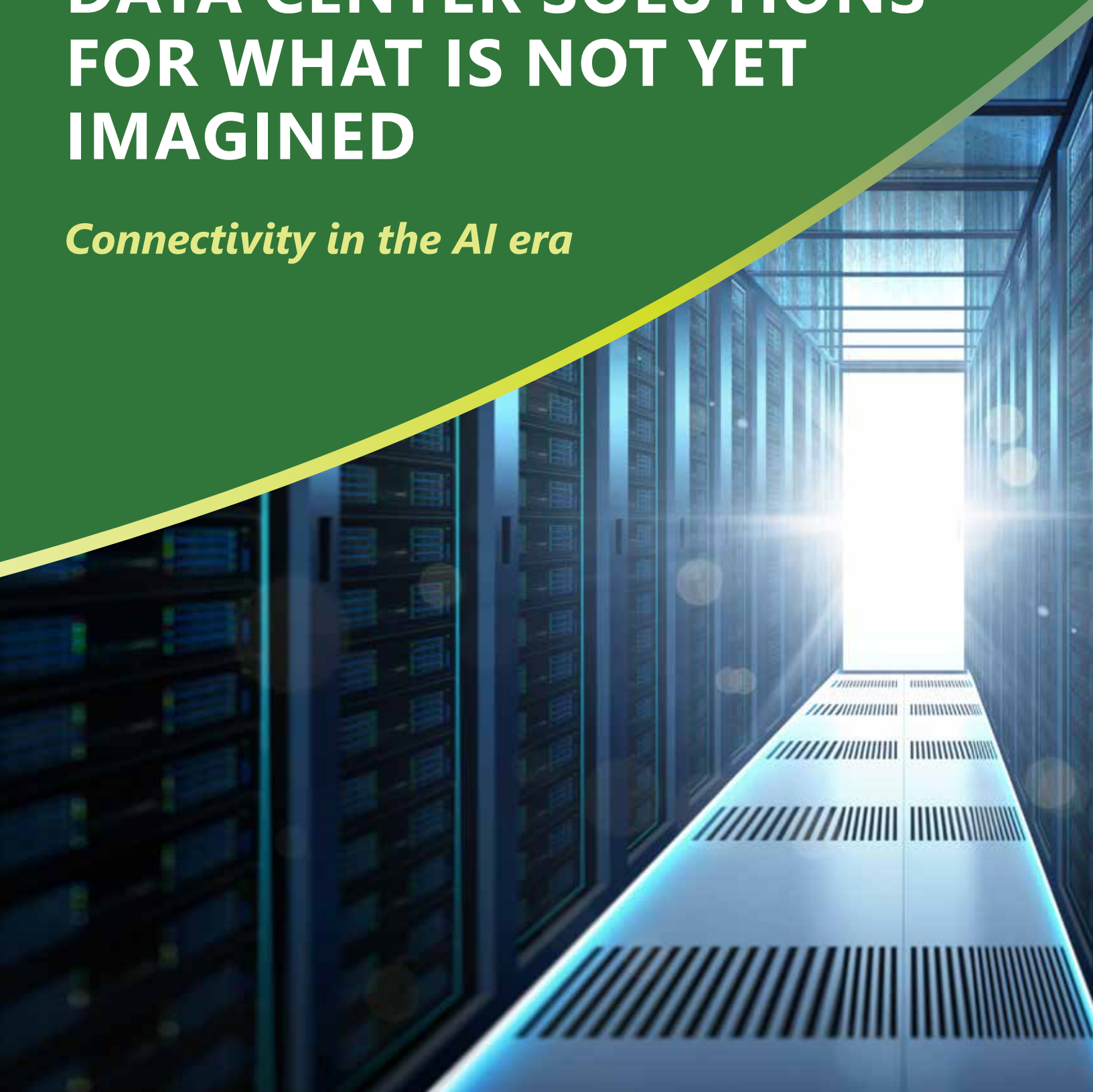# DATA CENTER SOLUTIONS FOR WHAT IS NOT YET IMAGINED

Connectivity in the AI era

HEY DATA CENTER, DO MORE FASTER!

Data center managers have been trying to keep pace with unprecedented and relentless capacity growth. On top of online services, IoT, cloud computing, cloud storage, and 5G, AI demands extraordinary compute power and connectivity.

The number of devices in data centers (servers, switches, routers) has increased. Thus, forcing network architects to innovate to meet the low-latency requirements of data-intense applications.

This results in a need for more space, more aggregation points, and versatile connectivity solutions to handle the needed density and number of connections. All while executing under tight deadlines and short cycle times, without disruption to the customer experience.

Research from Forbes 2023 estimates:

4x *improvement in hardware compute performance*
50x *increase in processing workloads*
212x *increase in data center power consumption*

AI DATA CENTER GROWTH IS APPLYING PRESSURE TO INFRASTRUCTURE AND RESOURCES

Density	**Real Estate**	**Scale**	**Sustainability**
More connections to support more equipment	Physical space is at a premium	Compute power is doubling every 6 to 10 months	Off-set high energy consumption

Flexibility	**Speed**	**Labor**	**Operations**
Build to accommodate the next technology	Transitioning to 100G, 400G, & beyond	Data center staffing & performance challenges	Reducing IL, latency, & service interruptions

DATA CENTER INFRASTRUCTURE IS AS CRITICAL AS OUR CIRCULATORY SYSTEM

While the cost of connectivity may be fractional compared to real estate, HVAC, power, or servers, infrastructure is an essential ingredient to data center operations. Connectivity enables the information flow and ultimately the consumer experience. And making the right choice in connectivity impacts data center operators' ability to:

- Scale operations, adding network capacity with turnkey, end-to-end solutions
- Manage their fiber density by creating more space
- Easily manage and operate their network through clear cable management and port identification
- Enable customization with versatile cutting-edge technologies
- Turn-up service quickly with readily available and short lead-time products
- Create or break out high-speed connections (100G, 400G, 800G)

Per Uptime Institute, the most common causes of data center issues are due to human error.

36% *Staff execution errors*
28% *Insufficient staff*
21% *Incorrect staff processes & procedures*

CONNECTIVITY THAT IS AS UNIQUE AS YOU ARE

Whatever architecture topologies you're designing or applications you're supporting, we have the scalable building blocks to bring your vision to life. Here's a glimpse of our high-density fiber optic portfolio.

INTRODUCING PEACOC® SPREADABLE ADAPTER TECHNOLOGY

An innovation that solves the biggest limitations associated with high density fiber connectivity today, difficulty in accessing and handling the compact optical connectors while performing typical data center services.
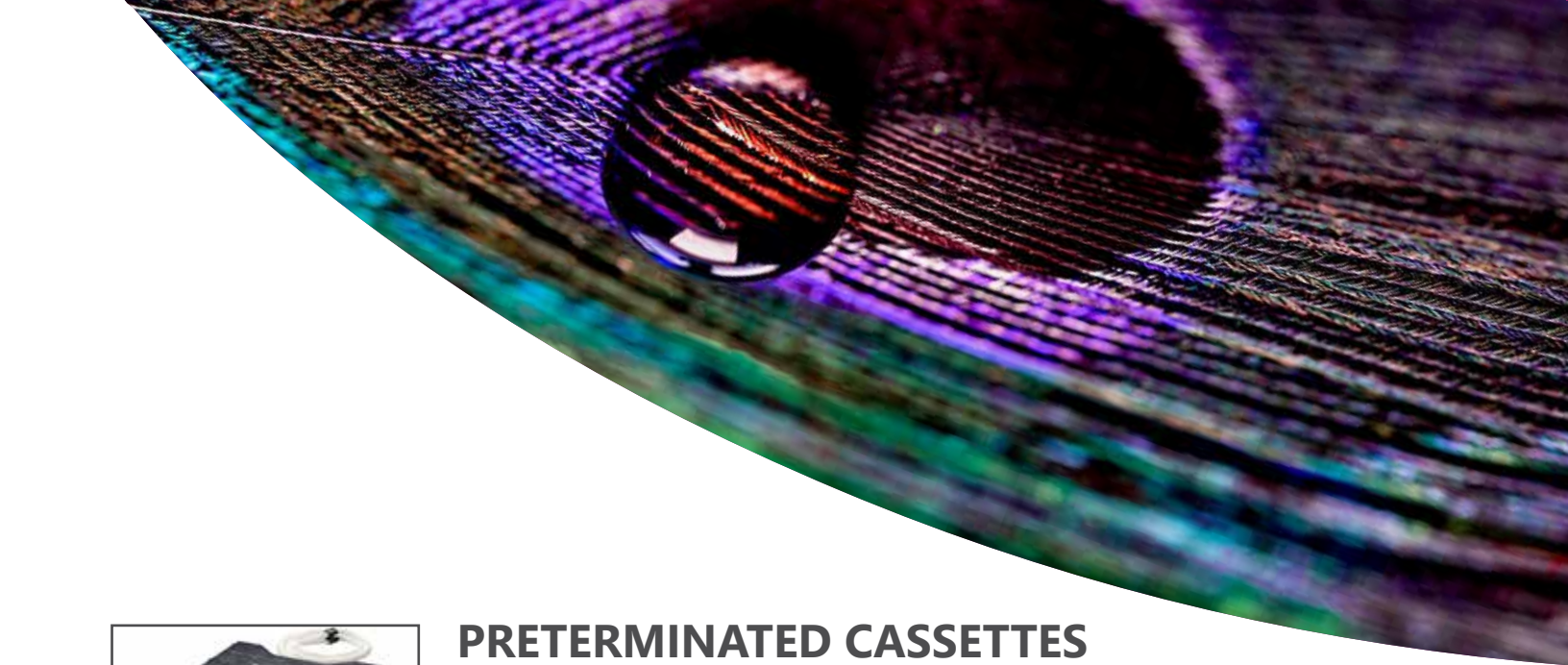
FIBER OPTIC DISTRIBUTION FRAMES

Designed to mount a variety of optical equipment and to accurately route, manage, and store large volumes of fiber cables for simple turn up of new services and connections.

HIGH DENSITY FIBER MANAGEMENT

With superior density for data centers, this distinctive design enables faster port identification, easy access to any port in any row, and simple connector traceability.

PRETERMINATED CASSETTES

Available preconfigured and field reconfigurable, cassettes support a variety of fiber patching and splicing applications. Features include integrated optical components such as tap splitters, PLC splitters, xWDM filter modules, and factory terminated trunk cables in various lengths.

PATCH CORDS & BREAKOUT CABLES

Using precision ferrules, precise housing dimension and metal guide pins to ensure accurate fiber positioning when mating, patch cords and breakout cables deliver the highest possible optical performance with a range of styles to fit your precise application: MMC, MDC, MPO, LC and SC connectors and more.

TURNKEY END-TO-END FIBER DESIGN & INSTALLATION MANAGEMENT SERVICES

Taking the hassle out of vendor management. Offering full-service project management, design & engineering, installation, and testing & turn-up services through our trusted network partners.

Conventional solutions are not equipped to solve the problems of the future. It's time for a new generation of connectivity to solve what AI and more have in store.

NEW DIMENSIONS IN CONNECTIVITY

Here's a look at how Go!Foton is designing connectivity for you.

You may need…	Our feature	Your benefit
More density to support more capacity and speeds	Spreadable adapters allow for more terminations	Increase capacity within the same amount of real estate
Easy and quick moves, adds, changes and troubleshooting	Labeling viewable from all angles	Save time, money, minimizes mistakes, increases uptime
A solution to scale	Modular solutions that support pre-terminated trunk cables	Add capacity as needed
Higher speed connections (100G, 400G, 800G)	Supports 4x10 Gbps, 100 Gbps, 2x100 Gbps, 4x100 Gbps, 400 Gbps, 2x400 Gbps, 4x400 Gbps breakout requirements	Grow with technology without replacing the backbone
A large amount of product, quickly	Build to forecast and warehouse in the USA	Purchase and get product when you need it
To manage my technical staff shortages	Offer rack and stack services	Simplify installation and speed turn-up
A second supplier	Meets performance with short lead times	Stay on schedule and minimize risk
Sustainable solutions	High density products use less materials	Support green initiatives
Design & installation services	Full-service project management, design & engineering, installation, and testing & turn-up services	One vendor to manage your network projects, beginning to end

Choose Go!Foton to be your Innovator. Expert. Problem Solver.

LEARN MORE

Explore our data center solutions at gofoton.com/datacenter

Go!Foton

Innovator. Expert. Problem Solver.

Based in the USA with teams around the world, Go!Foton is at the forefront of advanced optical and photonics innovation. We engineer solutions to enhance user experience by offering customers unique approaches to solve real-world problems in connectivity, imaging, and beyond.

Go!Foton technology stands apart with feature-rich and performance-optimized solutions. We keep our customers satisfied and businesses performing, ensuring new and improved experiences for all.

Inspired by nature and physics, the sky is the limit when imagining what's possible and creating what's next.

helpful customer service support

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