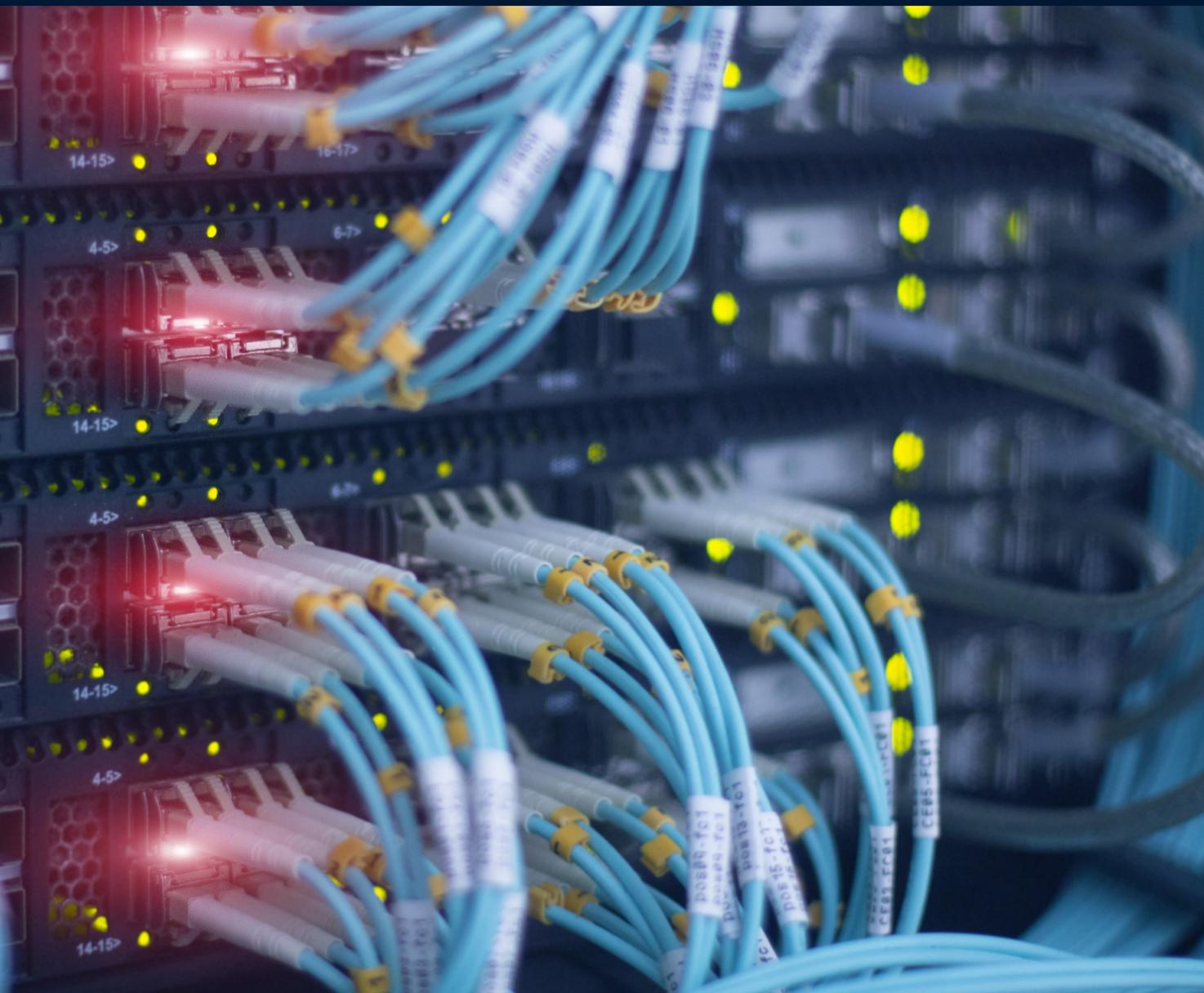


## CASE STUDY

# When it's All on the Line



**BIVAR**

[www.bivar.com](http://www.bivar.com)

## When it's All on the Line

Data centers whirr with action, carrying 1.145 trillion megabytes of emails, texts, and TikToks per day. Every server is alive with LED lights that share information with technicians who rely on their accuracy to manage the world's internet activity.

You can find our products illuminating nearly all industries. Leaders in communications, aerospace, medical, and more come to Bivar when they need to move LED light to a specific point, in, on, or around a product case, panel, or enclosure. LED lights are one of the primary interfaces between a user and an electronics product, communicating valuable system statuses like power, battery life, signal strength, warnings, and more.

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We give the same attention to customers, regardless of size. You're a startup; you're a huge corporation. It doesn't matter. We're here to serve everybody the same.

–Shirley Mercado, Bivar Business Development Manager

We know that a poor reading can negatively affect your user experience. So we take immense pride in helping you design top-notch products that expertly serve your customers. No matter how complex or straightforward, we have the experience and creativity to ensure light goes from point A to point B while addressing bends, curves, tight spaces, and technology demands.

## The challenge

Take the network hardware industry, for example. The engineering team at a major manufacturer of networking equipment has a problem. Confusion on their production line was leading to LED installation errors. During assembly, technicians were attaching light pipes to the wrong LED color, causing false readings from two indicators in the field. The team behind this data center server came to us for help.



## How we solved it

What the customer needed was a foolproof assembly process. We took a hard look at the steps to identify how we could make things as easy as possible for line technicians. Looking at the coloring on the flexible light pipe jackets, we noticed that each one was identical. The black coating made it all too possible to make a mindless mistake.

Enter our SMFLP Series—with a few tweaks to eliminate missteps on the production line. We recolored the light pipe jackets so they matched the LED they paired with. Additionally, we color-coded the board adapter to sync up with the corresponding light pipe. With all three pieces now color-coordinated, we ensured that readings at the server site were now clear and accurate.

Through a hand-in-hand collaboration with the client's large team of product managers and engineers, we did not only answer the question—but found a solution that was easy for the actual person performing the assembly, the line worker, to manage. Our rapid prototyping allowed for fast assessment so we could better understand the on-the-ground challenges. During our extensive testing, we discovered another helpful value-added solution: we painted an installation marker onto the jacketing so technicians would know precisely how far to insert the light pipe.

## We hit the ground running and utilize every minute

At Bivar, we meet our customers where they are. We problem-solve to help you avoid changes to your enclosure, board, or panel; instead, let us find a solution that meets your needs.

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What sets us apart? Our first hand variety of engineering experience. We don't just have one background but many different engineers, including mechanical, electrical, quality, and more. We invest in different types of people and equipment to help with our research and design, such as our 3D printer, laser cutting machine, five-axis CNC, and more.

—Kurt Baron, Bivar Design Engineer

We back everything we do with care, creativity, and attention to detail. With over 50+ years of experience in the design and development of LED illumination and Circuit Board/Component Hardware, we are a trusted engineering-solutions provider.

## We're all in this together

We become a natural extension of your in-house engineering team, bringing the same pride and commitment to your project that you'd expect from your internal staff. Our all-hands-on-deck mentality is rooted in a unique structure that not many other companies can mimic—Bivar is fully ESOP employee-owned. “We're all in this together,” explains Bivar Business Development Manager Shirley Mercado. “The work we put out benefits customers, sales channel partners, and employees in the long run.”

# Long-standing relationships with major players across the globe

Quick engagement and responsive turnaround are two things we strive to bring to every project. We don't just find a solution and leave you to it, but we go the extra mile to coordinate purchasing and distribution.

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We have different options we can give a customer, such as priority expedite or air logistics to cut down lead times and meet delivery deadlines.

–Shirley Mercado, Bivar Business Development Manager

Suppliers, contract manufacturers, and distribution partners worldwide know us for our diligence, expertise, and commitment to service. This reputation grants us access to resources and supply chain arrangements that help us meet tight production deadlines.

# Let's work together to illuminate your next innovation

When you're faced with the unexpected, you need an illumination partner willing to explore the details. At Bivar, we illuminate the way for innovative engineering teams so they can get sophisticated, quality products to market with confidence.

