

Table of Contents

Overview.....	1
Why Customization.....	2
Myth No. 1: Customization Slows You Down.....	2
Myth No. 2: Customization is Too Expensive.....	2
Myth No. 3: Customization is Only for Big Data Centers with Big Orders.....	2
Myth No. 4: Customization isn't Truly Necessary—You Can Get By on What's Available.....	3
Myth No. 5: Customization is Focused on Products Only.....	3
Myth No. 6: Customization Means the Product is Designed to Work Only One Way.....	3
Myth No. 7: Everyone Benefits from Customization.....	4
Learn More.....	4

Overview

“You can have any color you want – as long as it’s black.” This was reportedly Henry Ford’s response to customization when the first Model T cars were rolling off the line. To make them as affordable and reliable as possible, he limited production variation. Using a type of quick-drying paint that was only available in black allowed Ford to cut costs and assemble the cars faster.

Statements like this hold true in the data center world, too – leaving a lot of people unsatisfied with the data center infrastructure options available to them. But when people in our industry hear the word “customization,” they automatically think:

“Expensive”

“Only huge data centers need customized solutions”

“Customization solutions take too long to deploy”

These statements may have been true decades ago, but things have changed.

Standardization and customization are not mutually exclusive.

Today, “customization” means you don’t have to settle for a product that doesn’t meet your data center’s exact needs or requirements. Think of it as “personalization” – a way to make your data center your own so that it can serve your organization in the best way possible.

When manufacturers can’t provide solutions that solve your specific data center problems, then they don’t offer true customization. They may use the “customization” term, but it’s likely that you’re receiving the same package as everyone else.

According to Data Center Knowledge, between 40% and 50% of the data center marketplace has requirements that aren’t already incorporated into data center products – which means that customization is needed in many situations. Think about how much more efficient the data center environment could be if infrastructure products were selected based on your specific project requirements, whether those requirements involve mixing copper and fiber in the same patch panel or creating a plan to increase density. Customization is an option with enterprise servers and computers – so why not follow the same path with the infrastructure that supports this equipment? First, evaluate your needs. Know that customization is an option if need be, and then standardize accordingly across your data center(s).



Why Customization?

Mobile devices, cloud computing and IoT are placing pressure on IT departments and data centers as end-user expectations continue to intensify. Data centers – and the people who manage them – must be able to manage these expectations while focusing on security, energy efficiency, availability, reliability and cost efficiency.

Enterprises are mapping their own paths, plans and timelines for managing this rapid-pace transformation. But every organization is different, so the data centers that support them are also different – from the IT budgets and staff resources available to how far along they are in embracing new technology. That's why customization is so important for today's data centers. If you can't get exactly what you need, your data center may have to compromise on system performance: speed, reliability, uptime, etc.

Let's dispel some of the myths associated with customization to help you see how realistic a customized data center infrastructure solution could be:

Myth No. 1: Customization Slows You Down

In theory, it may seem like a customized solution could hold up your processes. (Depending on who you work with, this may be reality in some cases.) But if it's handled correctly from the start, customization can actually save you time instead of slow you down.

As one small example, some manufacturers can ship enclosures with copper, fiber and accessories pre-installed to meet your specific requirements. When the enclosures arrive at your location, they're ready to use. This level of customization frees up the IT department to work on tasks other than assembly, and allows for plug-and-play deployment.



Myth No. 2: Customization is Too Expensive

Customization may increase product costs due to the amount of work put into designing and manufacturing them, the cost of producing a product for one specific purpose or customer, rework due to manufacturing errors, etc.

But costs can be controlled when you find a vendor that controls its own manufacturing process. This can help streamline customization processes and get products right the first time. In these situations, customization may still cost a little bit more upfront than a standard, off-the-shelf product, but the price of this customized solution is often still lower than what other vendors can offer because the entire manufacturing process is controlled and managed in-house. This keeps costs down and reduces the amount of design or manufacturing rework that might be necessary.



Myth No. 3: Customization is Only for Big Data Centers with Big Orders

Data centers of all sizes can benefit from customization. As mentioned earlier, when a vendor controls its own manufacturing process, this can streamline customization and save money. In-house manufacturing of data center infrastructure also offers another benefit: There aren't as many restrictions about quantity or high order numbers because the components aren't being ordered by a third party.





Myth No. 4: **Customization Isn't Truly Necessary—You Can Get By on What's Available**

This may be true, but what sacrifices are you making along the way? You don't want to settle on a standard data center product just because it's the only thing that's easily accessible.

Patch cords are a good example. All patch cords can connect one electronic or optical device to another for signal routing. But there are solutions available that can save you time, improve uptime and reduce the possibility for human error by quickly identifying patch cord connections within densely populated patching areas.

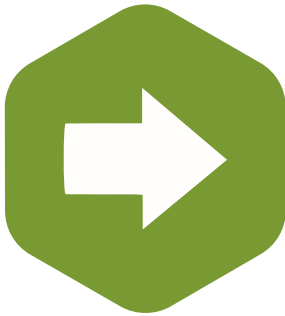
Customized solutions like these aren't just products – they are solutions to a problem that is causing wasted time and poor availability. Which leads us to Myth No. 5, below.



Myth No. 5: **Customization is Focused on Products Only**

Customizing data center products is always an option, but a true partner can “customize” every step of the process – long before a product is selected.

For example, are you running out of room and need help finding ways to fit more rack space into fewer square feet? Are your data center energy bills higher than you'd like, but you don't know why? Do you have copper and fiber running in your data center, with separate patch panels for both, and want to find a way to combine them? Sometimes the solution to these types of challenges may lead to a customized product, but sometimes it may instead involve brainstorming a new idea or design that is unique to your data center.



Myth No. 6: **Customization Means the Product is Designed to Work Only One Way**

A customized solution doesn't mean that a product is built from the ground up to meet only the needs of one customer or data center. Sometimes, customization is built into the product from the very start, allowing several types and sizes of data centers to use it in whatever way best suits the infrastructure.

For example, as discussions about the Open Compute Project (OCP) enter the scene, some data center managers are investing in this new way of designing and developing more efficient computing infrastructure. But most data centers aren't ready to go all in with Open Compute solutions yet. In this case, a customizable option, such as an OCP open rack, can help bridge the gap between standard TIA/EIA and Open Compute equipment. The racks can be converted in the field from TIA/EIA to Open Compute or vice versa, based upon where you are in the conversion process.





Myth No. 7: Everyone Always Benefits from Customization

Before considering a customized data center infrastructure solution, it's important to first understand your organization's current and future requirements – not only in terms of speed and bandwidth, but also in terms of how the organization's business processes may look in the future. A partner that takes the time to listen to your challenges, frustrations and future plans can help you compare features offered by standard, off-the-shelf products to determine whether a customized solution is truly necessary.

You might think your data center needs a custom solution, but maybe it doesn't. A true partner will help you determine what the infrastructure truly needs. Taking the time to manage real problem-solving, and working with data center managers to understand underlying business goals and the pressing issues that must be addressed – that's true customization. First, evaluate your needs. Know that customization is an option if need be, and then standardize accordingly across your data center(s).

Learn More

Belden takes time to thoroughly understand the challenges your business faces when it comes to your data center – not just in the data center space, but also its impact on the overall business. We can provide support and determine whether a customized solution is what you need. Belden can help you design, upgrade and maintain a data center that incorporates a necessary level of customization to support the ever-changing needs of your enterprise.

Belden's customizable solutions can:

- Address your data center's unique challenges
- Reduce the number of parts and changes required
- Improve system performance
- Decrease costs, lead time and delivery time
- Provide easier, quicker installation and better system performance due to solutions that are designed and engineered to work together
- Eliminate compatibility issues and large product replacement requirements
- Allow for fast upgrades and backward compatibility without full system teardowns

To learn more call **800.BELDEN.1**
(800.235.3361) or visit
info.belden.com/data-center/customization