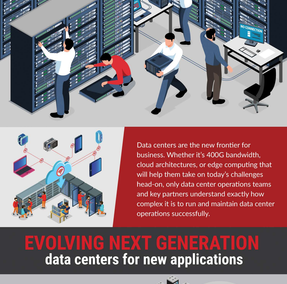
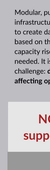
# NCS and CommScope Can Help Your Data Center Become More Profitable and Efficient





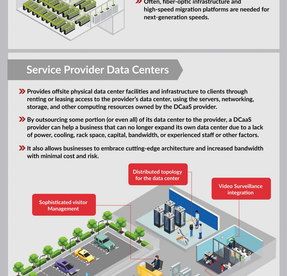
Data centers are the new frontier for business. Whether it's 400G bandwidth, cloud architectures, or edge computing that will help them take on today's challenges head-on, only data center operations teams and key partners understand exactly how complex it is to run and maintain data center operations successfully.

## EVOLVING NEXT GENERATION data centers for new applications

Modular, purpose-built data center infrastructure allows organizations to create data center services based on their need – when capacity rises and where it is needed. It is a straightforward challenge: **drive efficiency without affecting operations.**

## NCS and our key partner, CommScope, support three main data center applications:

### Enterprise Data Centers



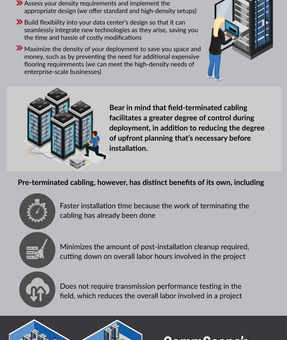

- Facilities owned and operated by the company it supports
- Built on-site at a corporate campus but can be offsite in some instances
- Optimized for their end-users
- Storage management
- Bandwidth-intensive virtualized
- Cloud applications

### Multi-tenant Data Centers (MTDCs)

- Rent server space to host data
- Provide space and equipment to connect an organization to service providers at the lowest possible cost.
- Have a unique set of challenges in that because competition is high, MTDCs must scale to provide high bandwidth with the best possible efficiency without disruption.
- Often, fiber-optic infrastructure and high-speed migration platforms are needed for next-generation speeds.

### Service Provider Data Centers

- Provides offsite physical data center facilities and infrastructure to clients through renting or leasing access to the provider's data center, using the servers, networking, storage, and other computing resources owned by the DCaaS provider.
- By outsourcing some portion (or even all) of its data center to the provider, a DCaaS provider can help a business that can no longer expand its own data center due to a lack of power, cooling, rack space, capital, bandwidth, or experienced staff or other factors.
- It also allows businesses to embrace cutting-edge architecture and increased bandwidth with minimal cost and risk.




## Design and implementation support for next-generation data centers

The cabling infrastructure of a data center is entirely different from the cabling of a building. The cables tend to be shorter in length and higher in bandwidth.

**A single cabinet may require anywhere from 24 to 96 connections**

### The components of a data center require significant infrastructure to support the center's hardware and software, including:

- Routers
- Servers
- Power subsystems
- Ventilation
- Uninterruptible power supplies (UPS)
- Cooling systems
- Fire suppression
- Backup generators
- Connections
- External networks

## NCS qualified and certified professionals can:

- Help improve the cooling efficiency of your data center with a structured cabling design that will enhance your facility's airflow
- Assess your density requirements and implement the appropriate design (we offer standard and high-density setups)
- Build flexibility into your data center's design so that it can seamlessly integrate new technologies as they arise, saving you the time and hassle of costly modifications
- Maximize the density of your deployment to save you space and money, such as by preventing the need for additional expensive flooring requirements (we can meet the high-density needs of enterprise-scale businesses)

**Bear in mind that field-terminated cabling facilitates a greater degree of control during deployment, in addition to reducing the degree of upfront planning that's necessary before installation.**

**Pre-terminated cabling, however, has distinct benefits of its own, including**

- Faster installation time because the work of terminating the cabling has already been done
- Minimizes the amount of post-installation cleanup required, cutting down on overall labor hours involved in the project
- Does not require transmission performance testing in the field, which reduces the overall labor involved in a project

## CommScope's Data Center Solutions



**Regardless of the type of data center you operate, CommScope can help you:**

- Design and implement a forward-looking strategy to seamlessly integrate the higher data speeds and bandwidths of the future, saving you costly business downtime for expensive infrastructure modifications down the road
- Enjoy quick and confident design deployments by qualified and certified professionals
- Take advantage of customized solutions for your data center ranging from fiber raceways to high-density fiber connectivity, high-speed migration, optical distribution frames (ODF), and more
- Use automated infrastructure management (AIM) technology to significantly simplify the upkeep and administration of your hyperscale or cloud data center
- Achieve your data center's goals with modular designs built for exponential growth and superior fiber performance to match the heightened demands of scaling up

**Enterprise data centers are facing an expanding landscape of new challenges. But you don't have to face them alone. Talking with a qualified networking solutions expert can make all the difference in your data center's ability to thrive and grow now and in the future.**

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