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Introduction

Data center cable management is often considered a problem reserved for network engineering teams, but bad cable design can wreak havoc across your entire enterprise.

"Spaghetti" cabinets and other symptoms of ill-considered cabling make it more difficult to complete equipment installations, troubleshooting, and maintenance. They can create an unsafe operating environment for your equipment by restricting airflow to racks, trapping dust, keeping cables warm, and making it impossible to understand at a glance how your devices are connected. Bad cable management practices can even hinder modern data center environments from adapting to new technologies like IoT and big data, provisioning IT resources on demand to support business innovation, and utilizing data center capacity to promote scalability, efficiency, and cost effectiveness.

More organizations are recognizing the importance of good cable management for modern data centers. As a result, they are investing time and resources in the planning and implementation of their network infrastructure. Yet, despite improvements to cable design and installation, many still struggle to instill good data center cable management behaviors across their environments. What they need is a data center tool that can decrease the complexity of cable management.

That's where Data Center Infrastructure Management (DCIM) software can make a difference. In this eBook, we've compiled seven best practices for good data center cable management alongside real-world tips from our experts and examples of how DCIM software can help you achieve them in your own environment.



Who Benefits from Good Cable Management?

In your data center, your cables are your highways, and your connections are on/off ramps. Nearly every aspect of your data center is affected by your cabling. The better your cable management is, the better the management of your entire data center will be.

As a result, data center cable management impacts a variety of functional teams and roles, including:

- Data center managers
- Data center operators
- IT teams
- Power teams
- Facilities teams
- Network engineering teams
- Server teams
- Infrastructure teams
- Cable installers
- Data center move teams
- Internal and external customers





Key Challenges of Data Center Cable Management

Despite its importance to the data center, cable management often takes a back seat to more prominent use cases, such as asset management and power monitoring.

Treating cable management as an afterthought, however, can lead to a host of challenges, including:

- Mismanagement of teams and resources
- Ineffective use of capacity
- Inability to move or install equipment and new capacity
- Missing or misused cabling and other components
- Incorrect equipment installation
- Inability to correctly document cabling installations
- Unsafe operating environments for your IT equipment
- Increased capital expenditures for new cabling and hardware

Any of these issue can potentially lead to poor data center cable management and limit your ability to successfully manage your data center environments.

Keep the following best practices in mind as you plan, implement, and manage your cabling infrastructure to mitigate these challenges and future proof your data centers.



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