

DATA
CENTER



8 REASONS WHY YOU NEED BUSWAY IN THE DATA CENTER

Starline.



INTRODUCTION

In today's digital age, data centers are the backbone of many businesses, providing essential services and support for various operations.

To keep up with the growing demands, **it's crucial to have a reliable, efficient, and flexible power distribution system.** This is where busway systems come into play.

In this ebook, we'll explore eight compelling reasons why you need busway in your data center.

Scalability & Flexibility

Busway systems offer unparalleled flexibility, allowing you to easily reconfigure power distribution layouts to accommodate changing needs.

Unlike traditional pipe and cabling systems, busways are not having to go through walls or under floors, making it simple to add, move, or upgrade equipment without extensive downtime or labor cost

As your data center grows, busways can easily scale with you.

Additional sections can be added to the existing busway grid to distribute power to new machines and server racks efficiently.





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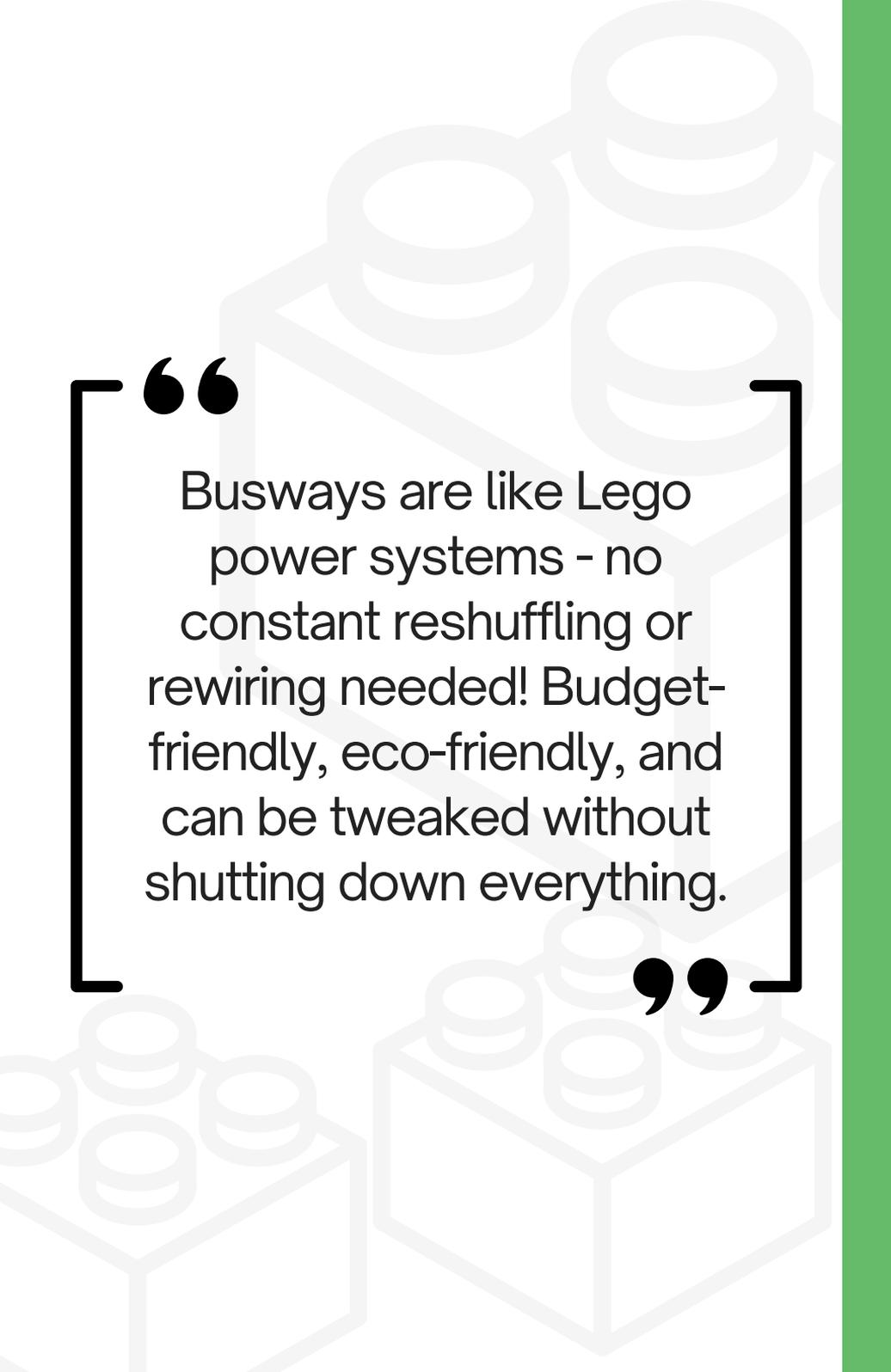
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Reduced Installation & Maintenance Costs

Installing busways is significantly faster and less labor-intensive compared to traditional electrical systems. This translates into immediate cost savings and minimizes disruption during installation.

Busways eliminate the need for frequent reconfigurations and rewiring, reducing ongoing maintenance costs. The components are reusable, and changes can be made without shutting down the entire system.





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Busways are like Lego power systems - no constant reshuffling or rewiring needed! Budget-friendly, eco-friendly, and can be tweaked without shutting down everything.

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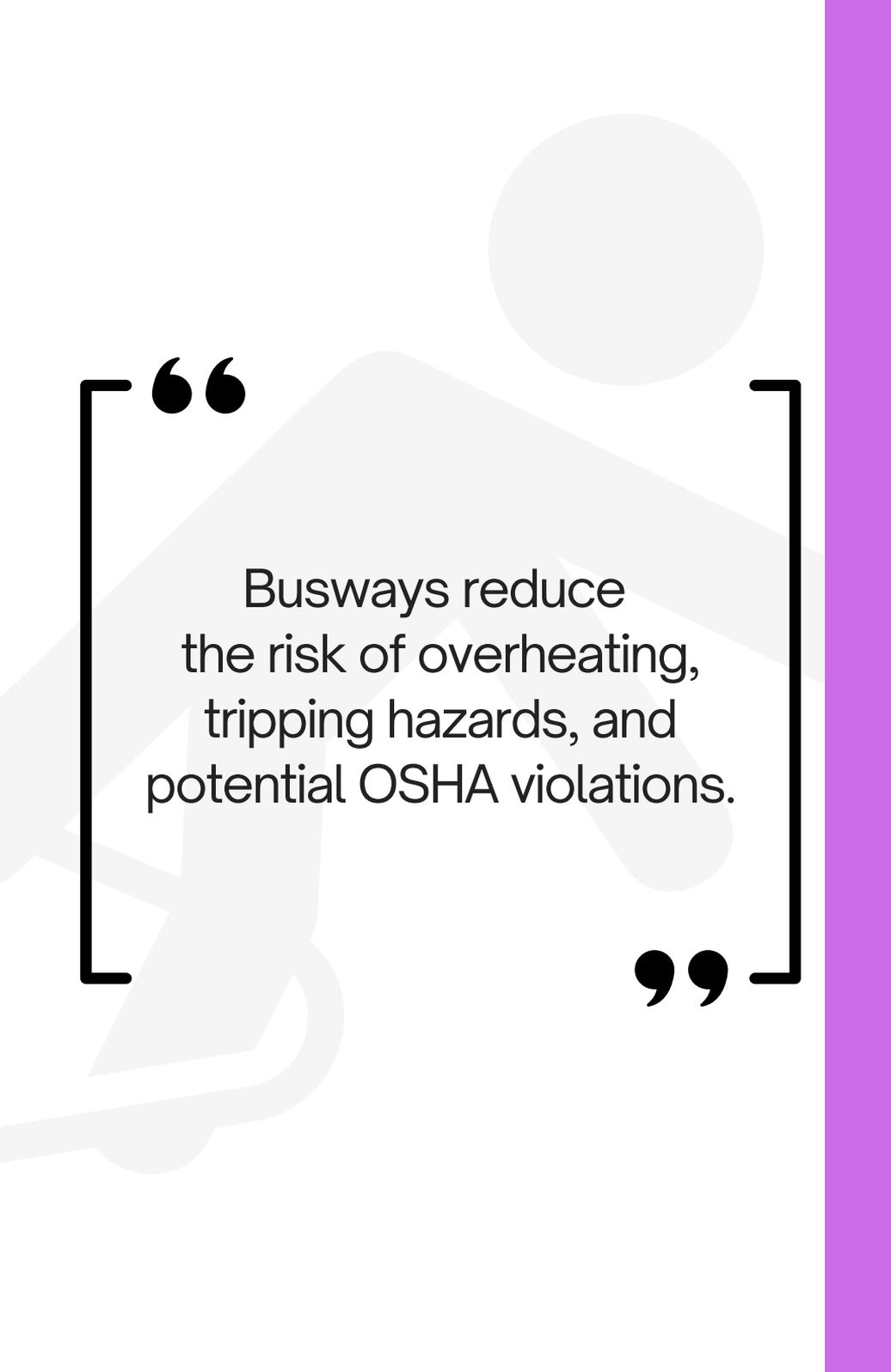
ENHANCED SAFETY & RELIABILITY

Busways include built-in safety features such as a ground path system throughout their enclosure and plug-in units, minimizing the risks of overheating, tripping hazards, and potential OSHA violations.

Busways provide more organized and reliable power distribution, ensuring critical systems receive uninterrupted power, which is vital for maintaining uptime in mission-critical environments.

Additional benefits include improved security and performance with integrated advanced energy metering platforms, real-time data integration into DCIM or BMS for optimized power and cooling systems, and reduced harmonic distortion by oversizing the neutral conductor to minimize heat rise.





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tripping hazards, and
potential OSHA violations.
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IMPROVED ENERGY EFFICIENCY

Traditional underfloor cabling obstructs airflow and hinders cooling efficiency. Busways, with their overhead design, improve air circulation, reduce cooling costs, and generate less material waste, making them more environmentally friendly.

Underfloor cabling causes airflow obstruction, cool air leakage, requires pre-planned raised floors, is hard to reach, increases labor, incurs high costs, and compromises hygiene. Overhead cabling avoids these issues and provides a more efficient solution for data center power distribution.



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In the realm of cable clutter, traditional underfloor setups hinder airflow. Busways offer overhead solutions, promoting airflow, cost savings, and a cooler aesthetic.

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FUTURE-PROOFING YOUR DATA CENTER

As technology advances, data centers require more power. **Busways offer the flexibility to support new technologies like AI without overhauling the power system**, accommodating higher power densities from from 40 kW to 200kW and beyond. They can be easily integrated and extended, ensuring long-term efficiency and functionality for both new and expanding facilities.

In contrast, maintaining distribution panels and branch breakers necessitates powering down, leading to higher labor costs and time constraints during future expansions.



A light gray silhouette of a superhero figure, possibly a woman, with one arm raised high in a power salute. The figure is wearing a cape and is positioned behind a large, black, stylized quotation mark frame. The background is white, and there is a vertical green bar on the right side of the image.

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Busways are like the
superhero capes of data
centers, seamlessly
adapting and expanding to
keep your tech hub running
smoothly and future-proof
for ages!
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INCREASED USABLE SPACE

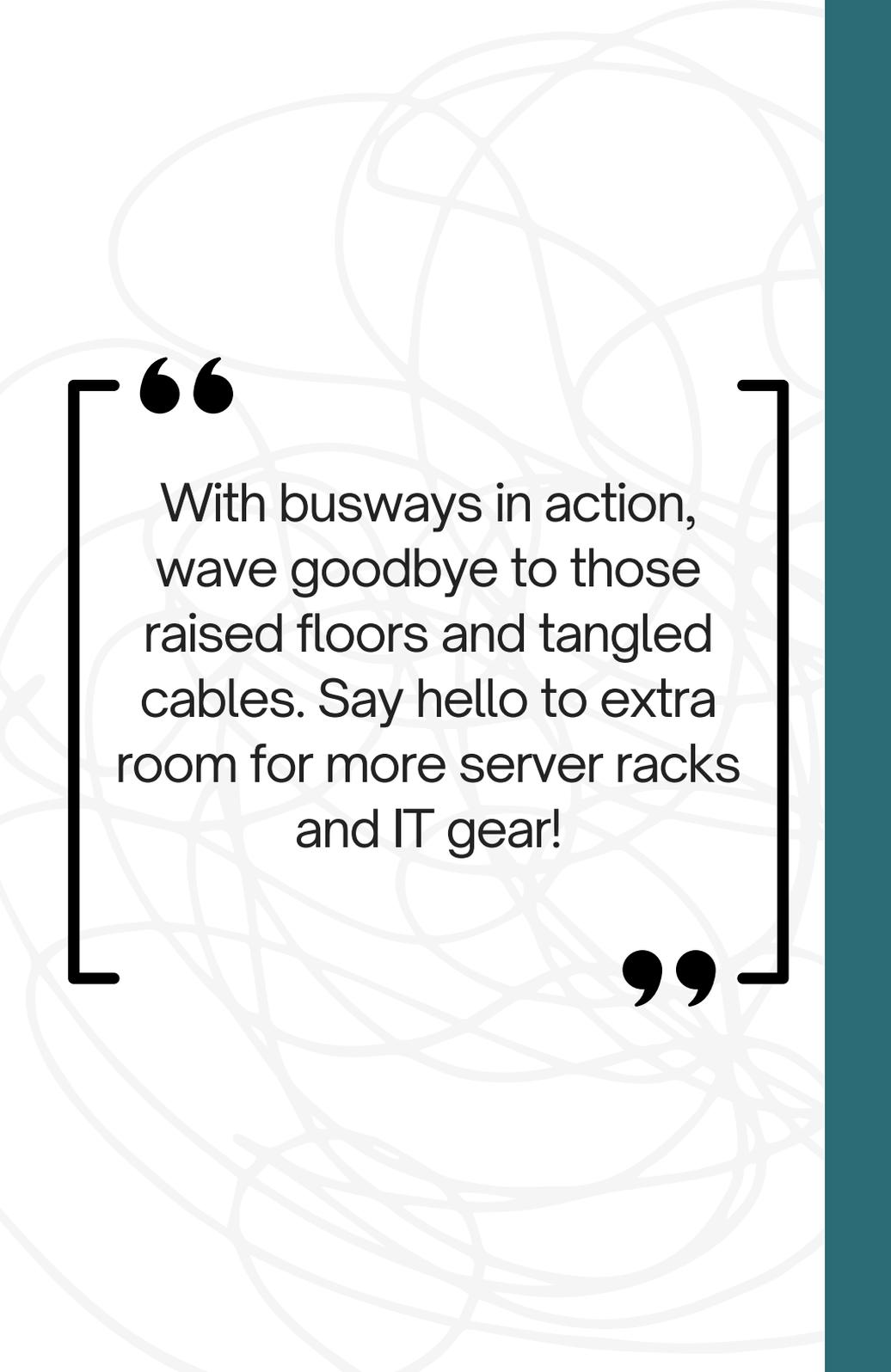
By eliminating the need for raised floors and extensive cabling, busways free up valuable floor space that can be used for additional server racks and IT equipment.

Using busways solutions allow you to eliminate Remote Power Panels (RPP) which occupy valuable space in data centers' White Space area.

The linear design of busways creates a more organized and streamlined infrastructure, making it easier to manage and maintain your data center.

The system makes maintenance and repairs easier with breakers and fuses located within the plug-in units.





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With busways in action,
wave goodbye to those
raised floors and tangled
cables. Say hello to extra
room for more server racks
and IT gear!

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Enhanced Monitoring & Control

Busways can incorporate advanced metering units that provide real-time data on power usage. This allows for better phase balancing and more informed decision-making regarding energy management.

With integrated web-based monitoring and alarm functions, busways offer remote management capabilities, making it easier to oversee and control power distribution from anywhere.

Accurate and real-time data enables data center managers to make data-driven decisions, leading to significant cost savings and improved performance, especially crucial with the integration of Machine Learning.



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Busways can be upgraded with smart metering solutions to provide real-time power consumption data, improving power distribution and enabling energy-saving decisions.

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COST-EFFECTIVE OVER TIME

Although the initial investment in busways may be higher than traditional systems, the long-term savings in installation, maintenance, and energy efficiency make them a cost-effective solution. Over time, busways reduce the TCO by minimizing the need for costly reconfigurations and downtime.

The improved efficiency and reduced labor costs associated with busways ensure a higher return on investment (ROI) compared to traditional power distribution systems.





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Busways offer efficient and
cost-effective power
solutions with higher ROI
compared to traditional
setups.
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8 REASONS

1. Scalability & Flexibility
 2. Reduced Installation & Maintenance Costs
 3. Enhanced Safety & Reliability
 4. Improved Energy Efficiency
 5. Future-Proofing Your Data Center
 6. Increased Usable Space
 7. Enhanced Monitoring & Control
 8. Cost-Effective Over Time
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CONCLUSION

Investing in busway systems for your data center is a strategic decision that offers numerous benefits, from scalability and cost savings to enhanced safety and energy efficiency. **By choosing busways, you are future-proofing your data center and ensuring it can meet the demands of today and tomorrow.**

For more information on how busways can transform your data center, visit [Legrand.com/datacenter](https://www.legrand.com/datacenter)

