



PHYSICAL INFRASTRUCTURE MANAGEMENT SOLUTIONS™

Empowering a Global Future of IT Infrastructure
Space with Passive Networking Solutions

PHYSICAL INFRASTRUCTURE MANAGEMENT SOLUTIONS™

Physical Infrastructure Management (PIM)™ Solutions merge technology and infrastructure to create efficient, connected, and sustainable environments. They leverage passive components, sensors, and data analytics to optimize operations, conserve resources, and enhance performance. By minimizing active intervention, these solutions improve reliability and efficiency. Applications range from smart building management to energy conservation, transforming industries. As technology evolves, passive intelligent solutions are shaping a smarter, more sustainable future.

What is a PIM™ Solution?

Physical Infrastructure Management (PIM)™ refers to a system that monitors, manages, and optimizes physical network infrastructure and IT assets automatically. AIM integrates intelligent hardware, sensors, and software to provide real-time visibility into the status and connections of network components, such as cables, ports, and devices. This advanced cabling solution goes beyond traditional structured cabling. By integrating servers, controllers, and intelligent patch panels, it optimizes connectivity, enhances network reliability, and simplifies management. The result is a smarter, more efficient, and future-ready network designed to support growing business needs.

PIM™ Patching Systems

PIM™ cabling systems are designed to take traditional structured cabling to the next level by integrating intelligence and automation into every connection point. By incorporating smart patch panels and patch cords, these systems provide a well-organized, reliable, and efficient foundation for modern networks.

Remote Monitoring and Management

PIM™ cabling systems go beyond traditional connectivity by offering advanced remote monitoring and management capabilities. Through a centralized management platform, network administrators gain real-time visibility into the status, performance, and connectivity of devices and cables across the entire infrastructure.

Network Management System

The PIM™ cabling system is designed to transform traditional network infrastructure into a fully monitored and managed environment. It combines Network Controllers and Intelligent Patch Panels, each in a compact 1U form factor, making it space-efficient and scalable for modern data centers.



At the heart of the system is the Network Management System (NMS) software, which enables data center managers to Monitor every connection point in real-time for improved reliability and performance, Gain instant alerts and insights to proactively manage potential issues, Access a 2D visualization of racks and building layouts, providing an intuitive, user-friendly interface for faster decision-making and easier navigation.

Network Management System Software

The Network Management System (NMS) software is designed to simplify infrastructure monitoring and improve the reliability of complex networks. It automates port adjustments, movements, and updates, delivering instant and accurate results while maintaining a complete history of every change for quick reference. Switches can be managed more effectively through clear port relationship mapping, supported by real-time visualization.

To enhance security and responsiveness, the system provides intelligent alerts through LED indicators, alarms, and a user-friendly software interface. Notifications are also sent via email and text messages to immediately inform administrators of unauthorized access, damage, or unexpected connections. Its browser-server architecture further enables remote management, allowing infrastructure to be overseen and controlled from virtually anywhere.

For improved user experience, the software offers realistic rack simulations, along with the ability to import CAD files in vector formats to configure and display the physical locations of every connection. It also provides integrated device management functions, ensuring smooth operation of connected assets.

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Key Components of PIM™ Solutions

1. **Intelligent Hardware:** Includes smart panels, patch cords, and sensors for real-time monitoring of physical connections and devices.
2. **Centralized Management Software:** A unified platform for visualizing, managing, and documenting the physical network infrastructure.
3. **Environmental Monitoring:** Sensors for tracking temperature, humidity, and other environmental factors to maintain optimal operating conditions.
4. **Security Systems:** Includes access controls and alerts for unauthorized changes to physical connections.
5. **Data Analytics and Reporting:** Provides actionable insights, historical records, and predictive analytics for optimizing performance and planning upgrades.

Advantages of PIM™ Solutions

- Improved Network Visibility
- Enhanced Efficiency
- Cost Savings
- Stronger Security
- Scalability
- Compliance and Audit Readiness
- Optimized Troubleshooting
- Future Proofing

Applications

Data Centers: Optimizes connectivity, reduces downtime, and ensures efficient resource management.

Industrial Automation: Supports seamless IoT connectivity for real-time data and operations.

Healthcare Facilities: Ensures reliable and secure network management for critical systems

Education Campuses: Provides dependable connectivity for students, staff, and administrative systems.

Retail and Banking: Improves reliability of POS systems, ATMs, and customer-focused operations.

Features and Benefits

Fault Detection and Troubleshooting: Quickly identifies and pinpoints issues, minimizing downtime and enabling faster resolution for improved efficiency.

Enhanced Security: Monitors for unauthorized access or changes, safeguarding critical systems and protecting sensitive data.

Optimized Resource Utilization: Promotes cost savings by reducing downtime, improving asset management, and enhancing overall infrastructure performance.

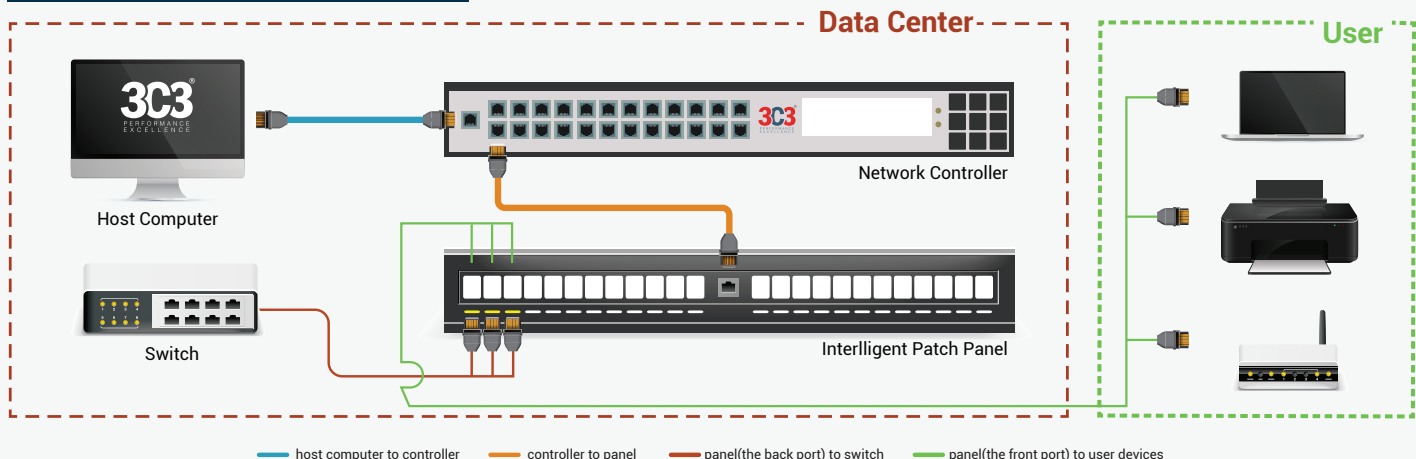
Real-Time Monitoring: Tracks network connections and device status, ensuring immediate insights and improving operational reliability.

Automated Documentation: Maintains accurate, up-to-date records of infrastructure changes, reducing manual effort and enhancing compliance with industry standards.

Why Choose PIM™ Solutions?

- Automates tasks to reduce manual workload.
- Minimizes downtime and optimizes asset usage.
- Ensures accurate records for audits and regulatory adherence.
- Identifies and resolves issues quickly.
- Adapts to growing infrastructure needs.

One port of a scanner with ONE panel



FOR DATA CENTERS

Revolutionizing Data Center Efficiency with PIM™

In today's digital era, where speed, uptime, and scalability define success, Physical Infrastructure Management (PIM)™ is transforming the way data centers operate. By combining real-time monitoring, automated documentation, and intelligent fault detection, PIM solutions deliver greater control, reliability, and efficiency. These systems minimize downtime, optimize resource utilization, and empower data centers to keep pace with the demands of digital transformation. ensure seamless connectivity, minimize downtime, and optimize resource utilization, empowering data centers to meet the growing demands of digital transformation.

Applications

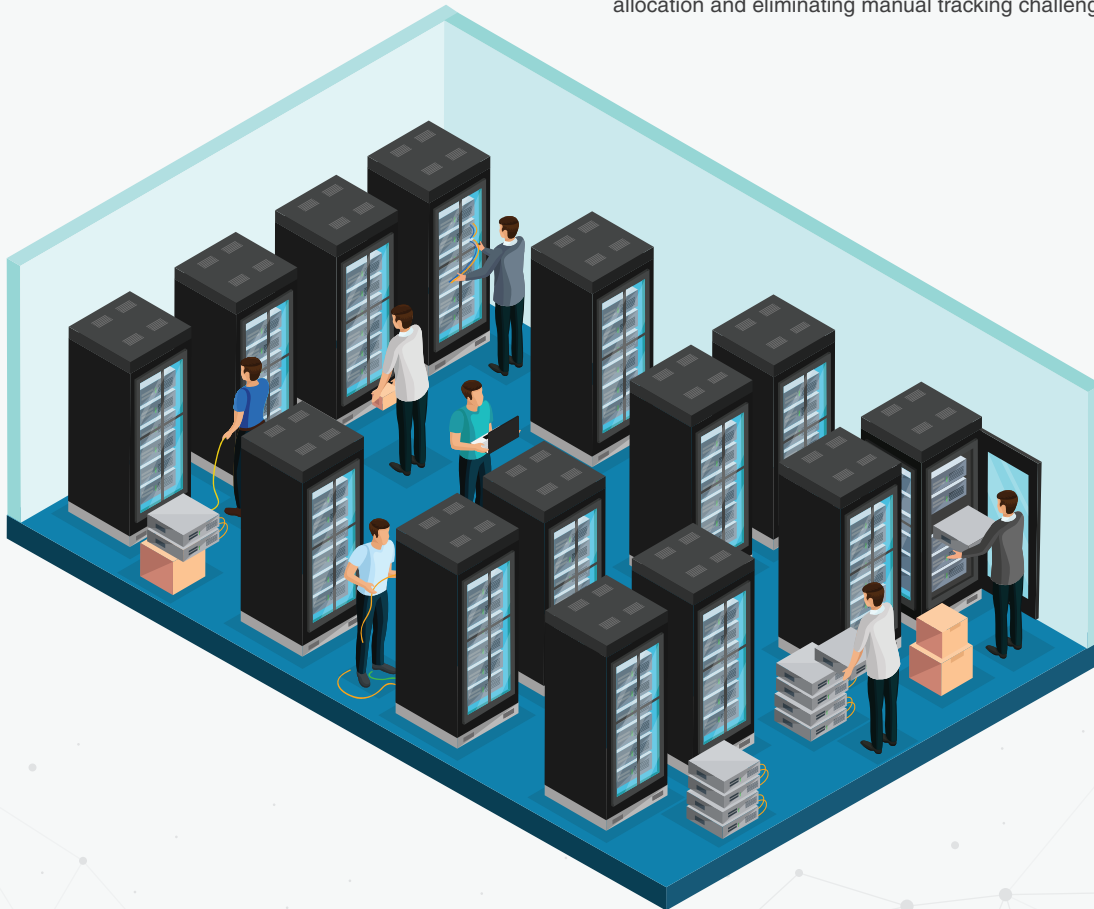
Patch Panel Automation- Automates and tracks patch panel activity to ensure accurate changes, reducing errors and preventing misconfigurations during maintenance or network upgrades.

Rack-Level Monitoring- Provides real-time visibility into rack utilization, power consumption, heat levels, and equipment performance, enabling better capacity planning and improved operational efficiency.

Migration Support- Simplifies data center migrations by mapping, documenting, and managing both physical and logical connections, ensuring a seamless transition with minimal disruption.

Enhanced Security- Detects and alerts on unauthorized access or infrastructure changes, adding an additional layer of protection for mission-critical systems.

Automated Asset Management- Maintains an up-to-date inventory of all physical and virtual assets, streamlining resource allocation and eliminating manual tracking challenges.



FOR INDUSTRIAL AUTOMATION

Enhancing Industrial Automation with PIM™

In industrial environments, where precision, uptime, and reliability are mission-critical, Physical Infrastructure Management (PIM)™ plays a vital role in supporting smart automation. Working alongside Automated Infrastructure Management (AIM) solutions, PIM provides real-time monitoring of IoT devices, manages complex cabling networks, and ensures uninterrupted data flow across production systems.

By enabling predictive maintenance, faster troubleshooting, and improved visibility, PIM strengthens the foundation of industrial automation resulting in smarter, more resilient, and future-ready manufacturing operations.

Applications

Factory Floor Optimization- Dynamically maps and manages the physical infrastructure to support flexible and reconfigurable manufacturing setups, enabling quick adaptation to production changes.

Remote Monitoring- Gives operators real-time visibility into infrastructure performance and connectivity from anywhere, improving operational flexibility and response times.

Cabling & Connectivity Management- Ensures highly reliable connections between machinery, industrial controllers, and monitoring systems, reducing the risk of errors or downtime.

Downtime Reduction- Detects and isolates connectivity issues instantly, minimizing production halts and ensuring maximum equipment uptime.

Dynamic Infrastructure Mapping- Provides a visual representation of devices, cables, and network paths, simplifying troubleshooting and supporting future system expansion.



FOR HEALTHCARE FACILITIES

Transforming Healthcare Facilities with PIM™

In healthcare environments, where reliability, security, and precision are paramount, Physical Infrastructure Management (PIM)™ plays a crucial role in strengthening IT and medical networks. By integrating Automated Infrastructure Management (AIM) capabilities, PIM™ streamlines network operations, manages the connectivity of life-saving medical devices, and ensures the seamless flow of real-time data across critical systems.

With features that enhance data security, reduce downtime, and support regulatory compliance, PIM™ empowers healthcare facilities to provide efficient, uninterrupted patient care while maintaining the highest operational standards.

Applications

Medical Equipment Integration- Monitors and manages connected medical devices, ensuring reliable functionality and continuous support for patient care systems.

Security & Compliance- Tracks and documents infrastructure changes to maintain compliance with healthcare regulations (such as HIPAA) and safeguard against unauthorized access.

Optimized Resource Allocation- Helps IT teams allocate network and infrastructure resources more efficiently, ensuring that systems supporting critical healthcare operations are always available.







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