Data Center Physical Infrastructure Design Service

Ensure A Solid Foundation For Your Cisco Nexus[®] 9000 Series Switch IT Infrastructure

Operational Excellence Starts With An Optimized Physical Infrastructure

Is your physical infrastructure ready for the investment made in your Cisco Nexus® 9000 Series Switch network architecture?

Panduit Advisory Services ensure that the foundation on which your Nexus network functions is optimized for power, cooling, space, and connectivity to deliver a robust, reliable, and operationally efficient design that will allow you to take advantage of new features such as BiDi optics for seamless 10 Gig to 40 Gig migration (and eventual migration to 100 Gig).

Data Center Physical Infrastructure Design Services

The key to long-term operational success lies in the integration and optimization of your physical and logical infrastructures. Whether you are supporting cloud and/or virtualization applications, trying to deploy a software-defined network (SDN), or simply upgrading your network capabilities, Panduit Data Center Physical Infrastructure Design Service can ensure that your physical infrastructure properly and fully supports the full performance of the Cisco Nexus[®] 9000 Series Switch to meet your current and long-term IT goals.

Panduit designs are based on reference architectures developed and validated by Panduit in conjunction with Cisco's technology teams. These architectures link the physical designs to logical architectures, enabling consistent and optimized deployments of sustainable IT systems.

By integrating the physical and logical infrastructures, Panduit Data Center Physical Infrastructure Design Service helps you **minimize** risks, **increase** flexibility, and deliver **maximum** performance throughout your Cisco network.

How Can This Service Deliver Return-On-Investment (ROI)?

The proper physical infrastructure design eases the challenges associated with data center operations and scalability. Panduit Advisory Services is focused on the details to:

- Optimize the agility, scalability, and reliability of your current physical infrastructure with the logical layer for current and future data center changes or expansions
- · Deliver a well thought out design for both day-one requirements and day-two future upgrades
- Support on-time deployment

Why Panduit?

Our solutions architects and data center designers sit down with your team to translate your logical network architecture into physical infrastructure design – using our Unified Physical InfrastructureSM (UPI) approach that helps our clients reduce operating costs, speed new hardware implementation, and ensure that future data center growth requirements are considered and planned for. Our approach is based on three pillars:

- Industry Standards
- Best Practices
- Reference Architectures

By integrating the physical and logical infrastructures, this approach minimizes risk, increases flexibility, and delivers maximum performance throughout your Cisco network.



Data Center Physical Infrastructure Design Service

Panduit Data Center Physical Infrastructure Design Service provides the following:

- A review of your existing environment and infrastructure for their ability to support your planned logical network and business requirements
- · Design coordination with power and cooling technology partners to ensure the most optimal data center layout
- Designs based on the latest technologies such as pre-configured systems and containment solutions
- A design that supports today's needs and is flexible for tomorrow's growth
- Optional thermal performance modeling to optimize the design for maximum energy efficiency

Information Gathering

In designing the physical infrastructure for your Cisco Nexus 9000 Series Switch implementation, Panduit takes into account your requirements and objectives, industry standards and best practices, and your logical network. These factors are the framework within which we develop the optimal physical infrastructure for your Cisco network, seamlessly merging the physical systems – power, cooling, racks, pathways, cabling, bonding, and identification – with the IT equipment they support – servers, switches, storage, and monitoring.

We develop a comprehensive infrastructure design specification report that considers all aspects of your data center's infrastructure including:

- Network architecture
- Facility configuration
- · Floor plan layout
- Rack/cabinet configuration
- · Connectivity requirements

Data Center Design

After reviewing your physical infrastructure, Panduit produces detailed AutoCAD designs and drawings that translate logical network architecture and physical layer requirements into a standards-based physical infrastructure design. This design addresses all data center elements including rack/cabinet layout, active equipment layout, cable infrastructure, cable pathways, bonding system, and data center identification scheme.

Panduit can also provide detailed specification documents for managing future changes and growth, supplying a tool for standardization throughout your network infrastructure, leading to better operational efficiency, reliability, and lower operational costs. Our design process aligns with the 30/60/90 final phased methodology common in the construction industry. To make the Cisco Nexus 9000 Series Switch implementation more efficient, we also provide a complete Bill of Material (BOM) of all elements included in the design, as well as build-to drawings.

Want to Get Started?

Contact your Panduit Sales Representative or email AdvisoryServices@panduit.com.

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Panduit takes into account your requirements and **objectives**, industry standards and **best practices**, and logical network to develop the **optimal** physical infrastructure for your Cisco network.



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