

 Signature Solutions ...

N-Series TeraFrame™ Network Cabinet



CHATSWORTH
PRODUCTS, INC.

Helping you

Organize. Store. Secure.™

technology equipment ...

Do Network Switches With Side-To-Side Airflow Compromise Your Hot Aisle/Cold Aisle Layout?

The heart of your network infrastructure is based on the survival of your core network switches. When employing side-to-side airflow, network switches located in a hot aisle/cold aisle layout run the risk of re-consuming hot exhaust air, causing elevated equipment intake temperatures. Therefore it is important to use storage solutions with reliable thermal management so that overheating and downtime does not become an issue.

Preserving Network Infrastructure Survival

The N-Series TeraFrame™ Network Cabinet from Chatsworth Products, Inc. (CPI) is precisely engineered to combat thermal management challenges associated with network switches using side-to-side airflow. By employing CPI Passive Cooling™ Solutions, the N-Series TeraFrame can manage high-density switches while maximizing the energy efficiency of your data center. Not only does the N-Series TeraFrame provide the best choice for supporting your network infrastructure but also presents advanced cabling solutions for greater cable capacity and management.

N-Series TeraFrame™ Network Cabinet

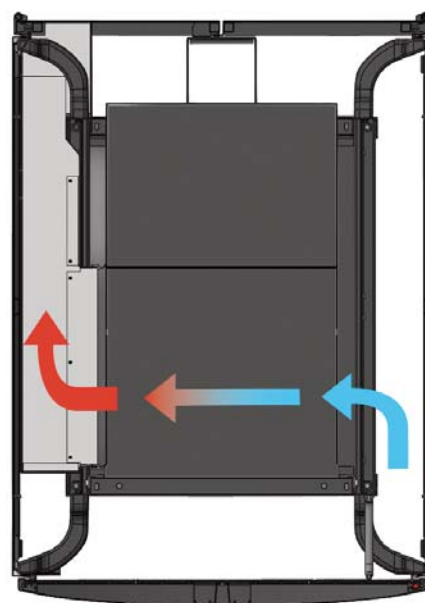
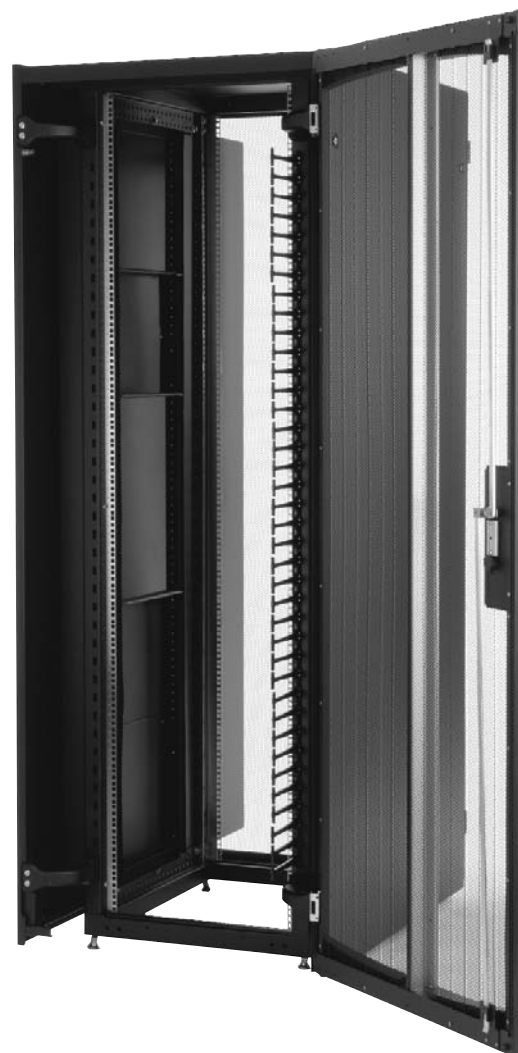
Thermal Management

- Remove Hot Exhaust Air – Designed to meet third party specifications for Cisco 6500 and 9500 switches, the Network Switch Exhaust Duct isolates and re-directs hot exhaust air from network switches with side-to-side airflow out of the cabinet and into the hot aisle, preserving critical equipment.
- Maximize Energy Efficiency – CPI Passive Cooling Solutions involve no active components to compromise redundancy and decrease total cost of ownership.
- Supports Hot Aisle/Cold Aisle Layout – Proper room design and airflow management allows network and server cabinets to be situated next to one another without overheating.

Cable Management

- Extra Cable Capacity – Offset doors and side panels provide additional interior space around the cabinet frame so that more cable can be added.
- Easy Cable Access – Cables route around the frame for easy access during moves, adds and changes while removable doors and side panels increase interior accessibility.
- Simple RMU Organization – T-shaped cable guides divide and organize cables.

N-Series TeraFrame™ Network Cabinet is designed to meet third party specifications for Cisco 6500 & 9500 switches



The Network Switch Exhaust Duct reduces re-circulation of hot air within the cabinet

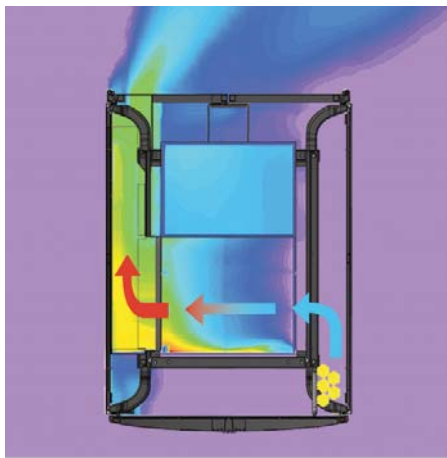
N-Series TeraFrame™ Network Cabinet

Thermal Management

The key to effective thermal management is the ability to separate hot and cold air. The TIA-942 standard recommends a hot aisle/cold aisle layout to control airflow and prevent hot and cold air from mixing. This layout works well for equipment with front-to-rear airflow; however network switches designed with side-to-side airflow require special consideration in order to prevent cascading thermal buildup as air moves through adjacent equipment.

The N-Series TeraFrame solves thermal challenges related to network switches with side-to-side airflow in a hot aisle/cold aisle environment more efficiently than other cabinet and rack options. By employing CPI Passive Cooling Solutions, the N-Series TeraFrame equipped with CPI's Network Switch Exhaust Duct removes hot air by isolating and re-directing exhaust into the hot aisle. This process minimizes hot air re-circulation and essentially converts side-to-side airflow into a front-to-rear airflow pattern.

With the ability to support exhaust from Cisco 6500 or 9500 series network switches, CPI's Network Switch Exhaust Duct serves as a cost effective solution for high-density applications. Utilizing CPI Passive Cooling Solutions, the N-Series TeraFrame maximizes energy efficiency by including no active components to increase maintenance cost and compromise redundancy, ultimately decreasing your total cost of ownership.



Temperature Variation



This CFD* model demonstrates how the N-Series TeraFrame™ Network Cabinet, which is engineered to control side-to-side airflow for network switches, guides hot exhaust air out of the cabinet using the Network Switch Exhaust Duct.

Network Switch Exhaust Duct

- CPI Passive Cooling Solution
- One full length duct supports up to three switches
- Allows freedom to organize and move equipment
- Eliminates re-circulation of hot exhaust
- Maintains hot aisle/cold aisle layout

Fast Fact



White Paper

For more information about the N-Series TeraFrame Network Cabinet, read CPI's White Paper at www.chatsworth.com/n-series

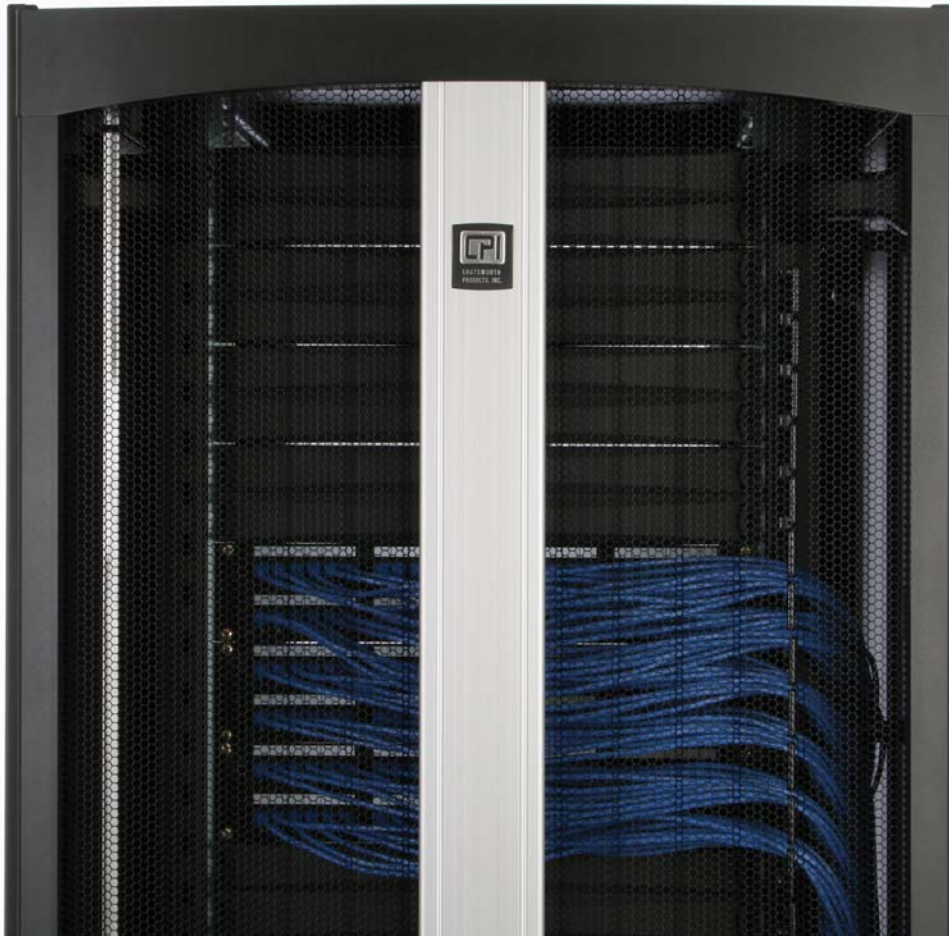
*CFD modeling is used to show airflow and temperature patterns of an N-Series TeraFrame equipped with a fully populated 9500 Series Cisco switch. Cabinet geometry is optimized to reduce re-circulation within the cabinet while maintaining a uniform flow field presented to the equipment cards. The cabinet shown has perforated front and rear doors and includes the optional Network Switch Exhaust Duct. Analysis data was validated with empirical data from physical testing.

Cable Management

Whether storing network switches, patch panels, fiber enclosures or a mix of equipment, your network cabinets must be able to hold more cable than server and data storage cabinets. Easy access to these cables and connections is essential and should be a major concern when planning and organizing network cabinets.

CPI's N-Series TeraFrame Network Cabinet features advanced cable management solutions that simplify installation and maintenance while providing maximum cable management capacity. The N-Series TeraFrame accepts cables through knockouts located on the top panel of the cabinet, while special T-shaped cable guides align with each RMU, precisely dividing and organizing cables as they enter and exit the rack-mount space.

In order to route and manage large quantities of cable, the N-Series TeraFrame includes Standoff Brackets that support offset doors and side panels to create added space between the cabinet frame, side panels and doors. Cabinet doors and side panels are easy to remove and provide full access to equipment and cabling, while the ability to route cables around the frame instead of through it offers a simple way to trace cables during moves, add and changes.



Patent Pending

Standoff Brackets



Patented

T-Shaped Cable Guides



Side Mounted Spools

- Offset doors and panels provide extra cable space
- Easy access for moves, adds and changes
- Manages 48 Cat 6a UTP cables per RMU
- Patented 1U cable management fingers
- Side-mounted spools guide cables

How to Configure Your N-Series TeraFrame™ Network Cabinet Solution:

1

Step One : Configure Cabinet Size

- 1 Width (800 mm)
- 10 Heights
- 11 Depths



2

Step Two : Network Switch Exhaust Duct - Optional Feature

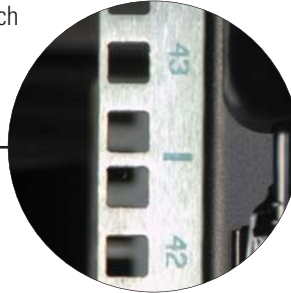
- Yes - the cabinet will support Cisco 6500 or 9500 series switches
- No - The cabinet will support patch panels and fiber enclosures



3

Step Three : Choose Equipment Mounting Rails

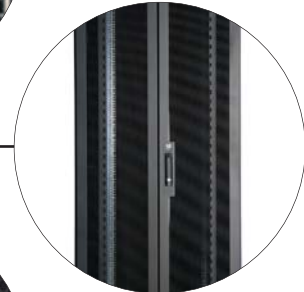
- Square-Punched, Two Pairs
- Tapped, #12-24, Two Pairs



4

Step Four: Door Styles - Standard Feature

- Perforated Metal Single Front Door
- Perforated Metal Rear Double Door



5

Step Five: Choose Door Latches

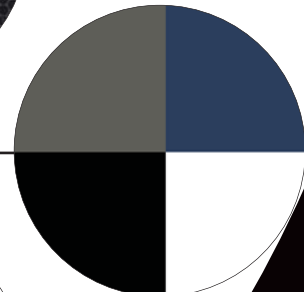
- Two-Point Cam Latch, Keyed Lock
- Two-Point Cam Latch, Combination Lock



6

Step Six: Choose Color

- Black
- Signature Blue
- Glacier White
- Steel Gray



7

Step Seven: Top Panel Style - Standard Feature

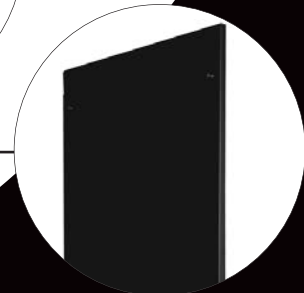
- Solid, Knock-Out Ports



8

Step Eight: Choose Side Panel Style and Quantity

- Solid
- Vented
- None



Fast Fact

CPI Cabinets, including the N-Series TeraFrame Network Cabinet can be configured online at: www.chatsworth.com/configurator.

Why Choose CPI? Flexibility, Availability and Reliability

Chatsworth Products, Inc. (CPI) is a leading manufacturer of systems designed to organize, store and secure IT infrastructure equipment. As an industry leader, CPI Products set the benchmark by providing superior structural support that exceeds customer expectations through innovation, function and performance. Unequaled customer service and technical support, as well as a global network of industry-leading distributors, assures our customers that CPI is dedicated to delivering IT infrastructure solutions designed to meet their needs.

Flexibility

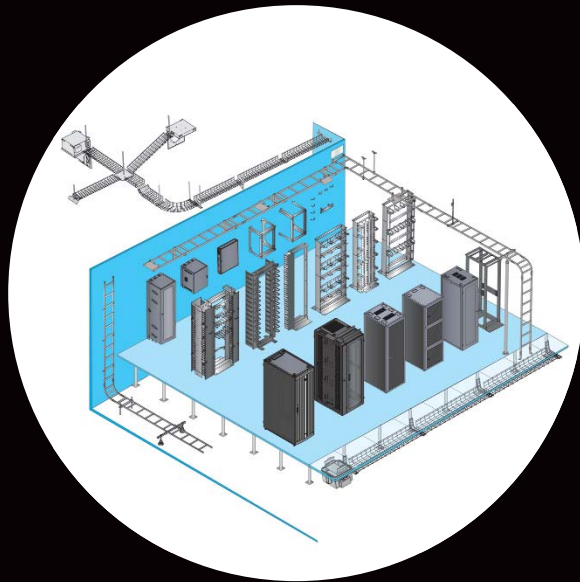
- Achieve Data Center Objectives
- Broad Product Selection
- Customized Configurations
- Adaptable for Future Applications

Availability

- Global Network of Distributors
- Short Factory Lead Times
- On-time Delivery

Reliability

- High Quality Products
- Customer Service & Technical Support
- Heavy Duty Packaging



The CPI Total Solution Includes:

- Equipment Support
- Cable Management
- Cable Pathways
- Grounding & Bonding
- Security & Monitoring
- Thermal Management
- Power Distribution
- Seismic Bracing

Find more information about CPI Cabinets at
www.chatsworth.com/n-series

800-834-4969

techsupport@chatsworth.com

All products quoted are subject to availability based on manufacturing capacity and shipping dates should be considered estimates only. While every effort has been made to ensure the accuracy of all information, CPI does not accept liability for any errors or omissions and reserves the right to change information and descriptions of listed services and products.

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