Signature solutions ...

Data Center Solutions

CHATSWORTH PRODUCTS, INC.

Helping you

Organize. Store. Secure.℠

technology equipment ...

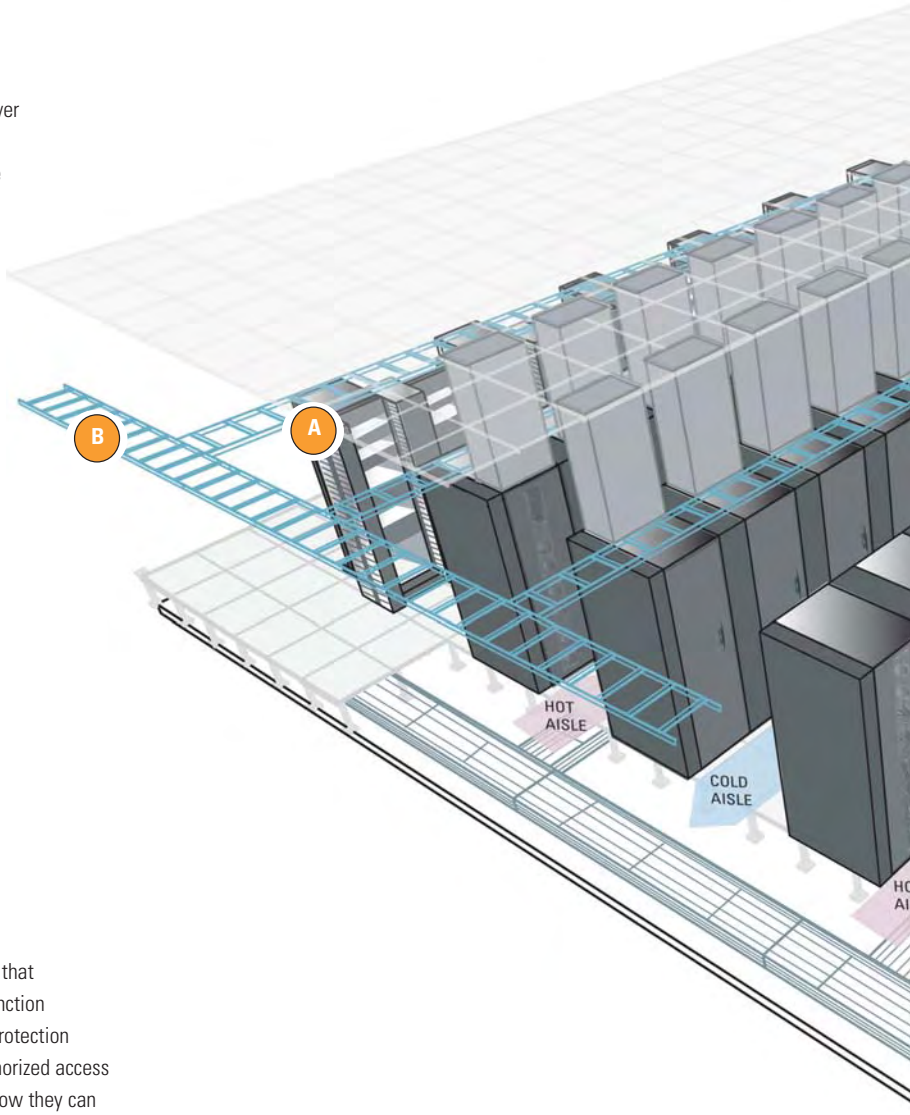
Data Center Solution Overview

In today's high speed world of data management, various steps go into planning and executing the creation of a successful data center. IT managers count on Chatsworth Products, Inc. (CPI) to help them create a comprehensive and efficient data center infrastructure. CPI offers a complete end-to-end system of solutions for organizing, storing and securing equipment and cabling in the data center.

Look to CPI for Flexibility, Availability, and Reliability.

Flexibility

CPI provides products and solutions that are flexible to meet the ever changing data center demands. Our broad selection of scalable products can be configured to create customized solutions that are unique to each customer's needs and adaptable to future growth. If you need a special design that we don't currently offer, we will work with you to create a solution to fit your requirements. At CPI we pride ourselves in taking the extra step to make sure that our customers have the best solution for their needs to ensure a successful data center.



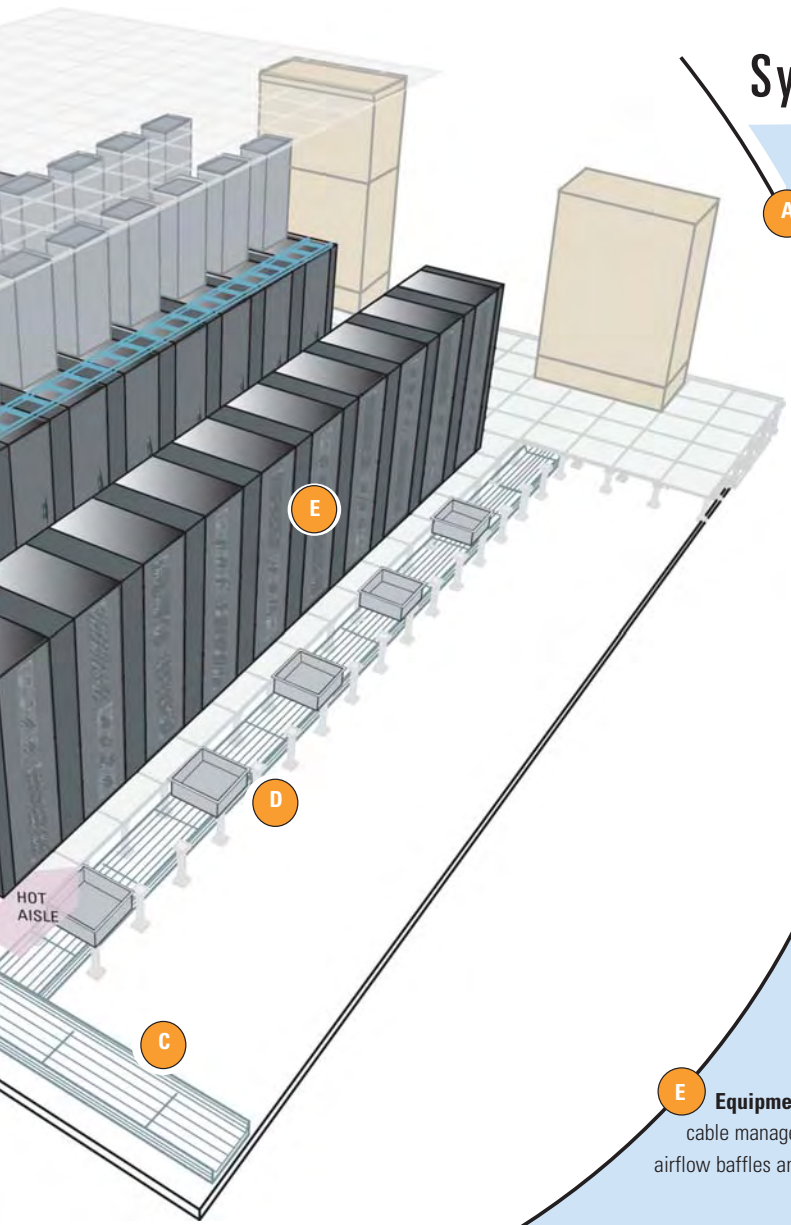
Availability

As the most trusted name in racks, cable management, cable pathway and cabinets, CPI's products are readily available through a global network of industry-leading distributors. This high level of stock availability, along with CPI's consistently short factory lead times, assures you that solutions will be accessible to meet your project scheduling needs. You can rely on CPI for what you need, when you need it and where you need it.

Reliability

The CPI product line delivers reliable structural support that exceeds customer expectations through innovation, function and performance. Rely on CPI solutions for the best protection against hazards associated with overheating, unauthorized access and cable congestion. Contractors and installers know they can depend on CPI products to arrive in perfect condition and ready to assemble. Not only do we provide outstanding products, we offer unequalled service and support that you can count on. Our highly trained Technical Support Specialists and Customer Service Representatives help you to choose a solution based on your specific needs.

Whether you are designing a new Data Center or enhancing an existing one, CPI can help you achieve the ultimate design solution based on your specific needs today, while allowing you the flexibility to succeed tomorrow. Our unique combination of exceptional solutions and service will help you achieve all of your data center objectives.



System Components

A **Cross Connect Racks:** Use Standard Rack and QuadraRack™ 4-post open equipment racks and vertical cable managers to store fiber panels, patch panels, network switches and routers to organize and manage cables in distribution areas.
See pages 4 & 5 for more details.

B **Overhead Pathways:** Use Cable Runway over racks and cabinets to create a pathway for cables. Overhead pathways are easy to access for quick moves, adds and changes. **See pages 6 & 7 for more details.**

C **Under Floor Pathways:** Use FastTrac™ Cable Tray to route cables between racks and cabinets under the raised floor. **See pages 8 & 9 for more details.**

D **Zone Distribution Areas:** Simplify changes in high churn areas by adding a zone distribution area near racks and cabinets with Raised Floor Enclosures and PatchRacks.
See pages 10 & 11 for more details.

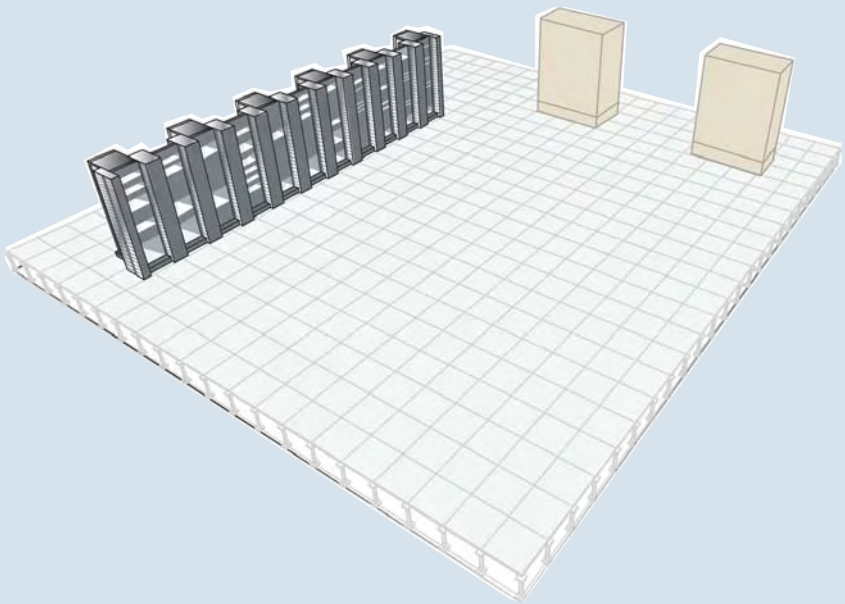
E **Equipment Cabinets:** Enhanced SteelFrame Cabinets maximize cooling and cable management for computer server and data storage equipment with integral airflow baffles and External Cable Managers. **See pages 12 through 17 for more details.**

Cross Connect Racks

CPI Racks provide the best solution for organizing IT infrastructure equipment in horizontal and main distribution areas within the data center. Our racks provide easy access to equipment and cabling generally using less floor space than equipment cabinets. Additionally, CPI's cable management solution guides patch cords from port to port making it easy for you to trace cables during moves, adds and changes.

CPI's recommended solution set includes the enhanced Standard Rack, QuadraRack™ 4-Post Frame and MCS Master Cabling Section. The newly enhanced Standard Rack, now with a 1,000 lb rating, is used to support patch panels and fiber enclosures. QuadraRack supports and protects network switches and routers. The MCS provides vertical cable management in between racks and features openings that align with each rack-mount space where T-shaped fingers guide cables into rack-mount spaces.

Universal Horizontal Cable Manager and Jumper Trays provide horizontal cable management to guide cables between MCS and the ports on the patch panels or switches. CPI racks help you create a highly organized and easy to manage network.



>> Standard Rack

The newly enhanced Standard Rack supports interconnect equipment like patch panels and fiber enclosures. Equipment mounting spaces are marked and numbered making it easy to position equipment. Threaded attachment holes on the support channels allow quick installation of equipment. The enhanced Standard Rack is UL Listed as a communications accessory and will support 1,000 lb of equipment.

Standard Rack		
Part Number	**Description**	**Shipping Weight**
55053-703	19"W x 84"H x 15"D, 45 RMU, 1000 lb	32 lb

>> QuadraRack™ 4-Post Frame

QuadraRack 4-Post Frame supports large modular network switches and routers. Network equipment is heavy and usually attaches to the front of the rack. QuadraRack surrounds equipment with a front and rear mounting channel, providing better support and added physical protection for equipment. QuadraRack will support 2,000 lb of equipment.

QuadraRack™ 4-Post Frame		
Part Number	**Description**	**Shipping Weight**
50120-703	19"W x 84"H x 29"D, 45 RMU, 2000 lb	65 lb

MCS-EFX Master Cabling Section - Extended Fingers		
Part Number	**Description**	**Shipping Weight**
40095-703	6"W x 84"H x 21.3"D	56 lb
40097-703	12"W x 84"H x 21.3"D	75 lb

Note: Single-sided versions are also available.

>> MCS-EFX Master Cabling Section with Extended Fingers

MCS-EFX Master Cabling Section Extended Fingers is a vertical cable manager that attaches to the side of Standard Rack and QuadraRack. Use 12" wide MCS-EFX in between racks and 6" wide MCS-EFX at the ends of rack rows. MCS-EFX creates a front and rear pathway for cables to separate premise cables and equipment cords. The door hides cable slack, is hinged to open to the right or left and can be latched closed or completely removed during cabling. Openings along the sides of the manager align with each rack-mount space on the rack making it easy to organize and trace cables.

Universal Horizontal Cable Manager		
Part Number	**Description**	**Shipping Weight**
30339-719	UHCM, 19"W, 1 RMU	3 lb
30330-719	UHCM, 19"W, 2 RMU	4 lb
30331-719	UHCM, 19"W, 3 RMU	5 lb

>> Universal Horizontal Cable Manager

Universal Horizontal Cable Manager is a rack-mount cable manager that is used in between patch panels to guide patch cords and equipment cords to connections. T-shaped fingers and evenly spaced openings at the top and bottom of the manager allow cables to be fanned into the connection space to maintain gradual cable bends. Cables can pass through the back of the manager to connect to the rear of equipment. A snap on cover hides cable slack.

Jumper Tray		
Part Number	**Description**	**Shipping Weight**
13183-719	Jumper Tray, 6"D	4 lb

>> Jumper Tray

Jumper Tray is a rack-mount cable manager that is used above modular network switches to create side-to-side pathways for patch cords and equipment cords on racks. Jumper Trays are especially useful for large bundles of cables and can be used to create a continuous rack-to-rack pathway for patch cords.

Power Strips		
Part Number	**Description**	**Shipping Weight**
13242-772	Vertical Power Strip with Amp Meter 240V, 20A, 20 NEMA 6-20 Outlets, 1 NEMA L6-20 Plug	12 lb
13247-771	Vertical Power Strip with Amp Meter 120/240V, 20A, 20 IEC C-13 Outlets, 1 IEC C-20 Inlet (no power cords)	8 lb
13233-752	Rack-Mount Power Strip with Amp Meter, 240V, 20A, 10 NEMA 6-20 Outlets, 1 NEMA L6-20 Plug, 1 RMU	7 lb
13236-771	Rack-Mount Power Strip with Amp Meter,120/240V, 20A, 16 IEC C-13 Outlets,1 IEC C-20 Inlet (no power cords), 1 RMU	4 lb

>> Power Strips

Power Strips distribute power to rack-mount equipment. CPI offers a wide selection of power strips to match your power requirements. Choose vertical or rack-mount power strips, with NEMA or IEC connectors. Circuit breakers, surge protection and current monitoring are optional.

Raised Floor Rack Support		
Part Number	**Description**	**Shipping Weight**
10632-119	Floor Support, 4"H to 10"H Floors	15 lb
10629-119	Floor Support, 10"H to 16"H Floors	18 lb
10630-119	Floor Support, 16"H to 22"H Floors	21 lb
10631-119	Floor Support, 22"H to 28"H Floors	24 lb
13501-119	Floor Support, 30"H to 36"H Floors	34 lb
06003-001	Anchor Setting Tool	1 lb

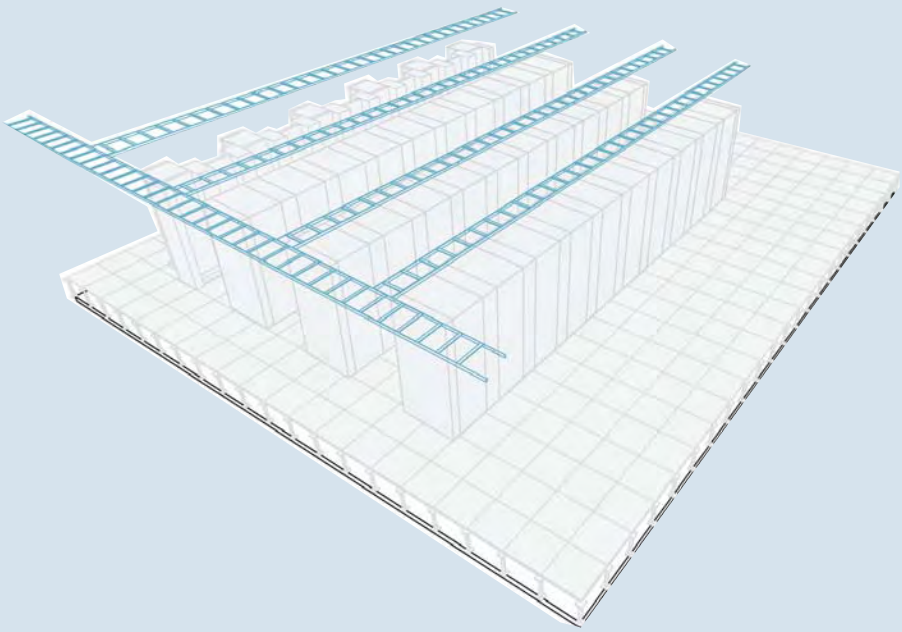
>> Raised Floor Rack Support

Standard Rack should always be secured to the structural floor. CPI offers rack and frame installation kits for slab, wood and raised floors. Select one kit for each rack. The kits listed are for raised floor installations. Select a kit that matches the height of the raised floor. Kits include all hardware needed to install a Standard Rack. A single anchor setting tool is also required to install the included anchors.

Overhead Pathways

Premise cables function to connect patch panels located on racks in horizontal and main distribution areas to the patch panels in equipment cabinets. Placing pathways overhead enhances airflow through the room and makes it easier to move, add or change cables.

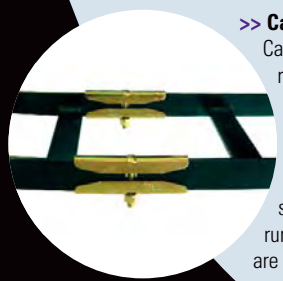
Considering how cable pathways affect airflow in your data center is an important issue. When cable pathways are located overhead they do not interfere with the airflow in the aisles between cabinets, nor do they block airflow under raised floors. In addition, by installing overhead pathways, you will eliminate the need to create floor tile openings which produce bypass air problems and require sealing devices. Overhead pathways are typically supported from the building structure, and the TIA-942 Standard suggests using multiple tiers of pathway to facilitate cable segregation. CPI's cable runway products are TIA-942 compliant — use them to organize your cables allowing them to enter and exit the pathway easily.



>> Universal Cable Runway

Use Universal Cable Runway to create overhead pathways for cables. Cable Runway is available in several widths and standard 10' lengths. Cable Runway splices together with hardware and is supported from the ceiling every 5' on threaded rod. Multiple tiers of cable runway can be suspended from the same threaded rod. Standards recommend 12" of vertical space between tiered pathways.

Universal Cable Runway		
Part Number	**Description**	**Shipping Weight**
10250-712	12"W x 1.5"H x 9'-11.5"L	25 lb
10250-718	18"W x 1.5"H x 9'-11.5"L	29 lb
10250-724	24"W x 1.5"H x 9'-11.5"L	32 lb

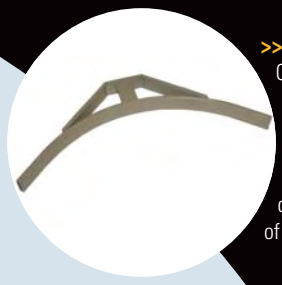


>> Cable Runway Splices

Cable Runway Splices connect sections of cable runway. Butt-splice kits connect cable runway of the same width end-to-end. Junction splice kits connect cable runway in an L-shape to form a turn or a T-shape to form an intersection. In seismic areas, use heavy-duty splices that bolt through the sides of cable runways to make connections. Heavy duty splices are also recommended with 24" wide cable runway.

Cable Runway Splices		
Part Number	**Description**	**Shipping Weight**
11301-701	Butt-Splice Kit, End-to-End	1 lb
11302-701	Junction-Splice Kit, L- or T-shape	1 lb
11299-701	Heavy-Duty Butt-Splice Kit	2 lb
11298-701	Heavy-Duty Junction Splice Kit	3 lb

Cable Runway Corner Brackets		
Part Number	**Description**	**Shipping Weight**
11959-715	Corner Bracket, 15"W	4 lb
11959-724	Corner Bracket, 24"W	6 lb



>> Cable Runway Corner Brackets

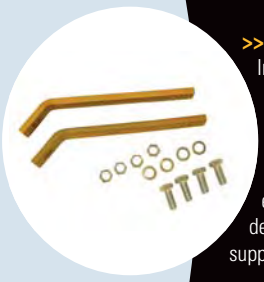
Cable Runway Corner Brackets add a radius to the corner of L-, T-, and X-shaped intersections created with Junction Splice Kits. Curved corners allow the cable to make a wider turn. Wide, smooth turns are recommended by cable manufacturers and cabling standards to reduce damage to cables and loss of signals. Corner Brackets attach to the side of cable runway with included hardware.

Ceiling Supports - Center Support Kit		
Part Number	**Description**	**Shipping Weight**
12362-712	Center Support Kit, 12"W	2 lb
12362-718	Center Support Kit, 18"W	4 lb
12362-724	Center Support Kit, 24"W	5 lb
11440-002	Threaded Rod, 5/8-11 x 6'L	5 lb
10557-003	I-Beam Clamp for 5/8-11 Threaded Rod	3 lb

>> Ceiling Supports - Center Support Kit

Ceiling supports are made by combining a Center Support Kit with a threaded rod and an I-beam clamp. When assembled, the components form an inverted T-shaped support for Cable Runway. Order the center support kit to match the width of the cable runway. Place a support every 5' of span and within 2' of each intersection or splice.

Earthquake Bracing Kit		
Part Number	**Description**	**Shipping Weight**
10695-001	Single Earthquake Bracing Kit	8 lb
10696-001	Double Earthquake Bracing Kit	14 lb



>> Earthquake Bracing Kit

In seismic areas, use threaded rods on both sides of the cable runway at each support point and Earthquake Braces between supports. A licensed structural engineer should recommend design, quantities and placement of supports and braces.

Pathway Dividers		
Part Number	**Description**	**Shipping Weight**
13392-712	Pathway Dividers, 25 Pack	3 lb

>> Pathway Dividers

Divide cable runway into multiple lanes to better organize cables. Tracing cables between points is easier during maintenance. Adding new cables is easier too. Pathway Dividers snap on cable runway cross members and are easily adjusted right or left to divide the pathway as required.

Radius Drop		
Part Number	**Description**	**Shipping Weight**
12101-701	Stringer Radius Drop, 10.25"W	3 lb
12100-706	Cross Member Radius Drop, 6"W	2 lb
12100-712	Cross Member Radius Drop, 12"W	2 lb

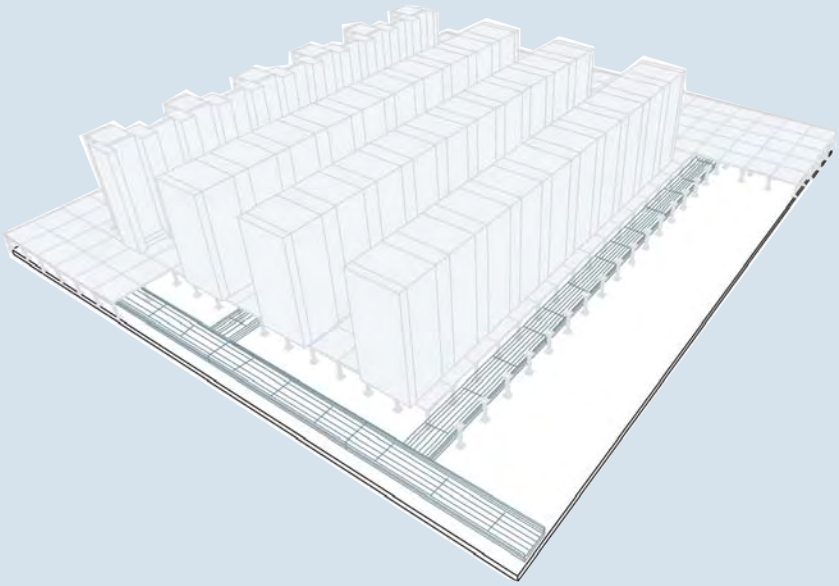
>> Radius Drop

Use a radius drop wherever cable enters or exits cable runway. Radius drops form a smooth curve that supports cable to reduce stress on cables as they drop off the pathway. Stringer Radius Drops attach to the side of cable runway. Cross-Member Radius Drops attach to the middle or end of cable runway.

Under Floor Pathways

Under floor pathways are used in data centers with raised floors. When a raised floor is present, it is often used as an air handling space to deliver cold air to equipment; therefore, it is essential to position under floor pathways so they do not obstruct the flow of air.

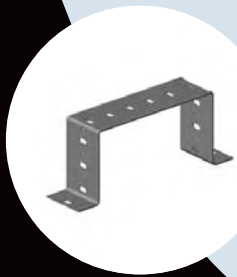
The TIA-942 Standard emphasizes the importance of incorporating a hot aisle/cold aisle layout into your data center with network cables located under the hot aisles. In order to maximize equipment cooling benefits, trays should be elevated as high as possible off the concrete floor leaving at least 3/4" of clearance between the tray and underside of the stringers as suggested in TIA-942. This creates channels under the tray so that cold air can travel under and around the tray into cold aisles and permits easy access to cables. Use CPI FastTrac™ Cable Tray to achieve easy installation results and you will be complying with the TIA-942 Standard that reinforces the benefits of thermal management and the hot aisle/cold aisle layout.



>> FastTrac™ Cable Tray

Use FastTrac Cable Tray to create under floor pathways for cables. FastTrac is available in 5' and 10' lengths in several widths and depths, but the 20" wide and 6" deep tray is preferred under the floor. FastTrac splices together with hardware over floor supports placed every five feet. A wire cutter is required to cut the sides where trays form intersections.

FastTrac™ Cable Tray		
Part Number	**Description**	**Shipping Weight**
13344-020	Cable Tray, 20"W x 6"H x 5'L	18 lb
13345-020	Cable Tray, 20"W x 6"H x 10'L	36 lb

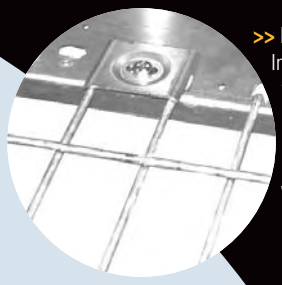


>> FastTrac Under Floor Support

FastTrac Under Floor Support is a U-shaped bracket that is placed under the cable tray to lift it off of the floor. Place supports every 5' at the ends or middle of tray sections. The ends of the FastTrac drop into slots cut at the top of the support. A single FastTrac Ground Washer splices and bonds the tray sections and supports together. Brackets provide a 3", 6" or 9" lift.

FastTrac™ Under Floor Support		
Part Number	**Description**	**Shipping Weight**
13350-020	Under Floor Support, 3"H for 12"H Floor	5 lb
13351-020	Under Floor Support, 6"H for 15"H Floor	5 lb
13352-020	Under Floor Support, 9"H for 18"H Floor	6 lb

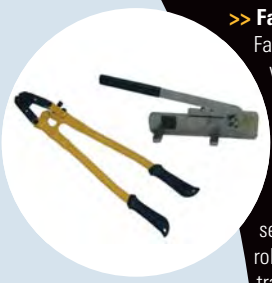
FastTrac™ Splices		
Part Number	**Description**	**Shipping Weight**
13361-001	Ground Washer, 50 Pack	7 lb
13364-001	Washer Splice, 50 Pack	4 lb
13365-001	Splice Bar, 50 Pack	21 lb



>> FastTrac Splices

In most cases, FastTrac Cable Tray is spliced over a support with a single ground splice. Fingers on the ends of FastTrac Cable Tray drop into slots on the top of the support. The Ground Splice bonds both ends of cable tray and the support together. Intersections generally require multiple Washer Splices and Splice Bars.

FastTrac™ Installation Tools		
Part Number	**Description**	**Shipping Weight**
13367-001	Wire Shear	5 lb
13369-001	Wire Bender	7 lb
13368-001	Cable Roller	1 lb



>> FastTrac Installation Tools

FastTrac is made from 5mm and 6mm steel wires welded into a 2" x 4" mesh. A special wire cutting shear is required to trim sections to length. Standard wire cutters will leave sharp ends on the wires that may damage cables. The wire bender can be used to form fingers on the ends of tray sections that are cut in the field. The cable roller is a pulley that attaches to wire basket tray. Use it at intersections to reduce stress on cables as they are pulled around corners.

FastTrac™ Accessories		
Part Number	**Description**	**Shipping Weight**
13358-506	Tray Divider, 10'L	15 lb
13360-520	Bottom Insert, 10'L	30 lb

>> FastTrac Accessories

To divide FastTrac Cable Tray into multiple cable pathways, use FastTrac Divider. Bottom Inserts are recommended with 6"H trays to protect cables at the bottom of the tray from being crushed against the tray wires. FastTrac Divider and Bottom Inserts can be used together.

New!

CPI KoldLok® Raised Floor Grommet		
Part Number	**Description**	**Shipping Weight**
13571-001	Integral Grommet, Brush, One-Piece, Raised Floor	2 lb
13576-001	Surface-Mount Grommet, Brush, Two-Piece, Raised Floor	3 lb

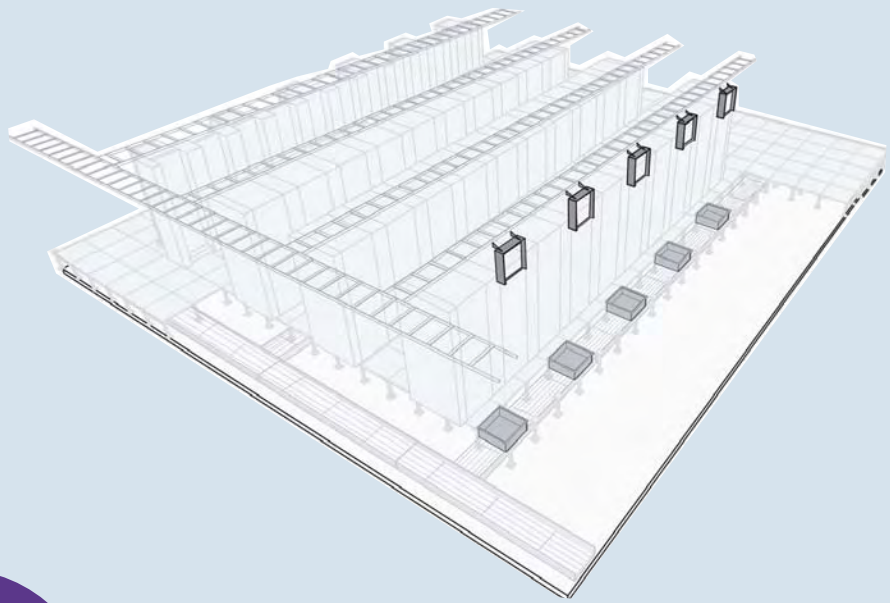
>> CPI KoldLok® Raised Floor Grommet

Use CPI KoldLok® Raised Floor Grommet wherever cables pass through the raised floor. They protect cables from tearing on rough cut edges. Brushes prevent excess cold air from escaping around cables and discharge static from cable surfaces.

Zone Distribution Areas

Zone Distribution Areas (ZDA) add flexibility to your network by reducing the amount of cabling that must be changed when cabinets are added, moved or replaced. By positioning ZDA above or below the cabinet you can reposition cabinets quickly and easily. CPI recommends ZDA in service provider sites and rented spaces because less cable is affected by a move, add or change.

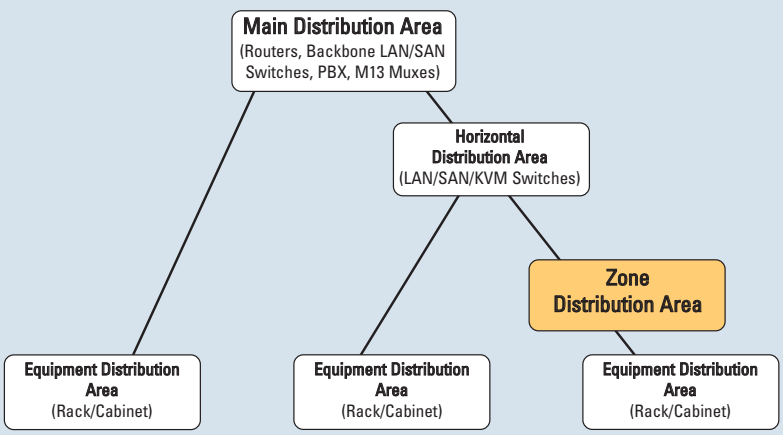
CPI's TIA-942 compliant ZDA creates alternate space for network connections near equipment cabinets, which may be located in enclosures under the floor or in overhead racks. According to the TIA-942 Standard ZDA should be limited to serving a maximum of 288 coaxial or twisted-pair connections in efforts to avoid cable congestion. This is particularly important for ZDA that are meant to be placed overhead or under floor tiles. The TIA-942 Standard also suggests using no more than one ZDA within the same horizontal cable run while additionally avoiding the use of cross-connections. It is important to make sure that no active equipment is located within the ZDA with the exception of your data centers powering equipment.



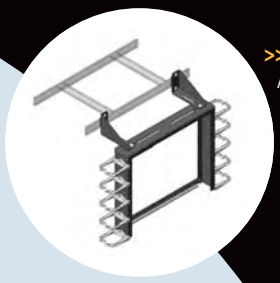
The TIA-942 Standard describes the integration of the Zone Distribution areas into the Data Center

Recommended Data Center Computer Room Topology

From TIA-942 Standard

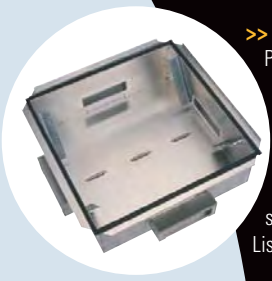


PatchRack for Cable Runway		
Part Number	**Description**	**Shipping Weight**
13395-704	PatchRack, 19"W, 4 RMU	5 lb
13395-708	PatchRack, 19"W, 8 RMU	7 lb
13396-204	D-Ring Kit for 4 RMU PatchRack	1 lb
13396-208	D-Ring Kit for 8 RMU PatchRack	2 lb



>> PatchRack for Cable Runway
Attach PatchRack to the side of Cable Runway to create a space above equipment cabinets for patch panels and interconnect equipment. Cabinets can be repositioned easily because only the cables between PatchRack and the cabinet are affected.

Raised Floor Enclosures		
Part Number	**Description**	**Shipping Weight**
A0422-RF	1 RMU + 1 RMU Enclosure for 4"D Floor	10 lb
A0622-RF	2 RMU + 2 RMU Enclosure for 6"D Floor	23 lb
A0822-RF	4 RMU + 4 RMU Enclosure for 8"D Floor	23 lb



>> Raised Floor Enclosures
Place Raised Floor Enclosures under a 2' x 2' raised floor tile to hold patch panels. The enclosure includes two pairs of mounting rails and uses the floor tile as a lid. Cable ports on the sides of the enclosure include foam sealing material. The enclosure is UL Listed for use in an air handling space.

Raised Floor Enclosure for Fiber		
Part Number	**Description**	**Shipping Weight**
A0822-RF-F	4 RMU Fiber Enclosure for 8"D Floor	30 lb

>> Raised Floor Enclosure for Fiber
This enclosure is designed to enclose a 19" rack-mount fiber enclosure under the raised floor letting you put fiber in the zone. It includes a single pair of 4 RMU mounting rails that can be adjusted to accommodate the depth of the fiber enclosure. The mounting rails lift out of the floor enclosure providing easy access to fiber patch cords and terminations.

These are but a few of the thousands of CPI part numbers available for your data center applications.

Fast Fact

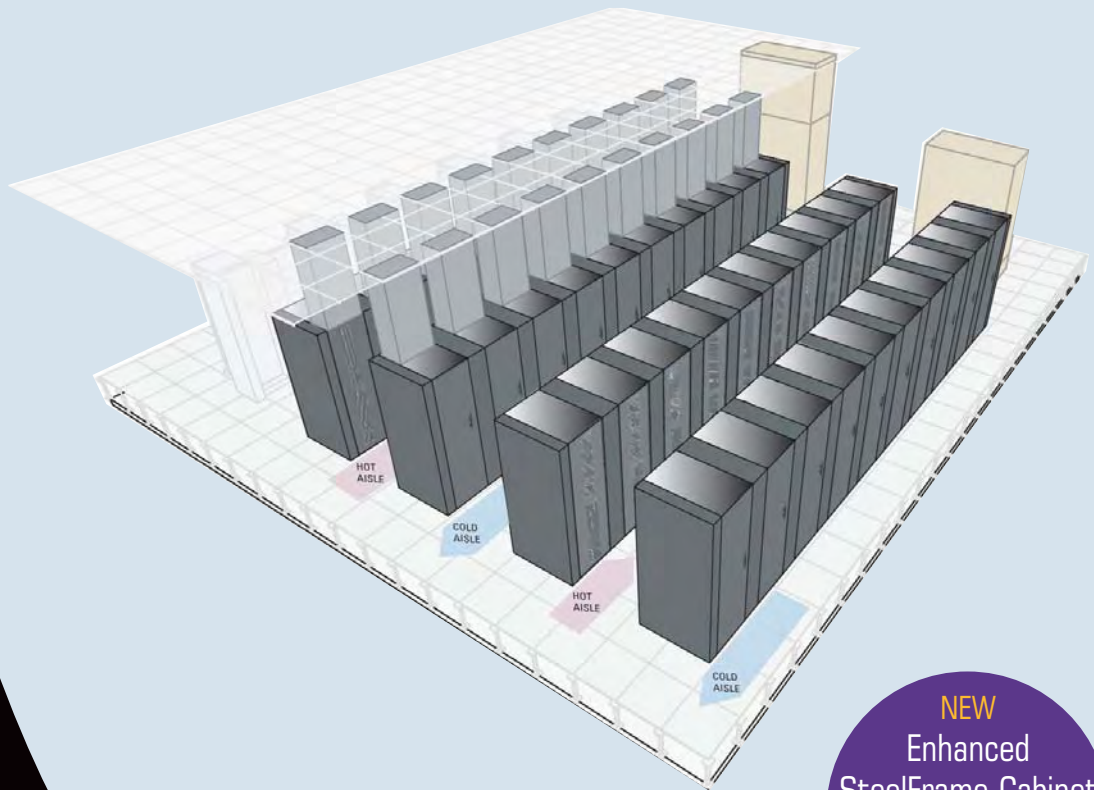
White Paper
For more information about Zone Enclosure standards and applications, read CPI's white paper at www.chatsworth.com/whitepapers

Equipment Cabinets

Cabinets store valuable computer and data storage devices within the equipment distribution area of data centers. Due to increasing heat loads in cabinets from higher density, more powerful computers, IT equipment cabinets must also be an integral part of the total data center cooling solution, primarily through effective air control.

Most rack-mount equipment is air cooled, meaning that cold air is drawn in through the front of equipment while hot air is expelled from the back. The only variable that can be controlled within your data center is the temperature of air being delivered to your equipment. Therefore, it is important to keep hot and cold air separated from one another so that you can influence the temperature and achieve effective cooling within cabinets. When a barrier does not exist between the front and rear of the cabinet, hot and cold air will mix increasing the temperature of the air delivered to equipment. High density installation intensifies cooling concerns as strong equipment fans pull air from the back of the cabinet. CPI Cabinets prevent hot and cold air from mixing using a proprietary Integral Air Dam, locking Therma-Stop™ Brush Side Panels, an External Cable Manager and accessory Filler Panels. When you close off all rack-mount spaces in the cabinet, cool air is forced from the front of equipment through the rear, resulting in more effective cooling. Additionally, cables are managed outside of the cabinet in External Cable Managers resulting in fewer obstacles blocking airflow leaving the rear of the cabinet.

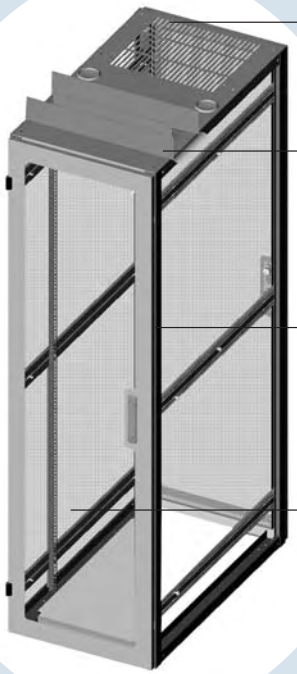
Configuring an equipment storage solution is easy with CPI's Enhanced SteelFrame Cabinet and accessories. Start a row with a cabinet, add a locking Therma-Stop Brush Side Panel, an External Cable Manager and another locking Therma-Stop Brush Side Panel. Then, repeat the process to create a multi-cabinet bay. Use locking Solid Side Panels for the ends of the bay.



NEW
Enhanced SteelFrame Cabinet
Features & Options
see pages 13 & 14

NEW Enhanced SteelFrame Cabinet — Standard Features:

Low kW Cabinet



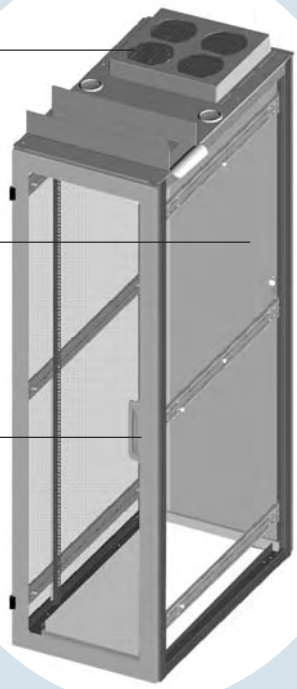
>> Vented Top Panel
Vented Top Panel allows hot air to escape. It can be upgraded with an Intelligent Fan Kit and/or Airflow Duct accessories.
(Standard on both Low & High kW Cabinet)

>> Jumper Trough
Jumper Trough routes patch and equipment cords from side-to-side or cabinet-to-cabinet and lines up with the cable access ports on the top of the External Cable Manager.
(Standard on both Low & High kW Cabinet)

>> Integral Air Dam
Integral Air Dam blocks airflow around the sides of the rack-mount space within the cabinet. Keeping cold and hot air separated in the cabinet increases cooling effectiveness.
(Standard on both Low & High kW Cabinet)

>> Front and Rear Perforated Doors with Swing Handle Latch
Perforated Doors have a mesh panel with optimized open area for maximum front-to-rear airflow. See page 18.
(Standard on Low kW Cabinet)

High kW Cabinet



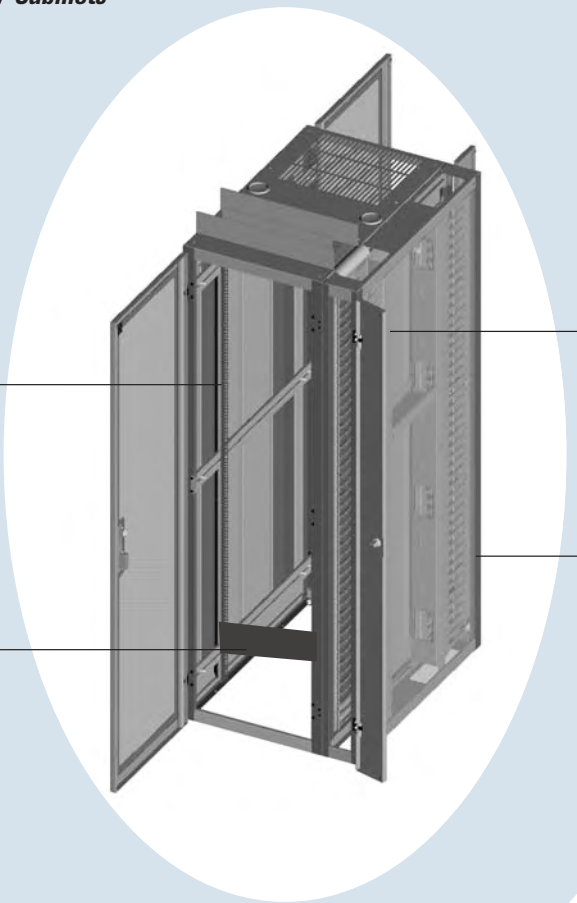
>> Intelligent Fan Kit
1,000 CFM Fan Kit pulls hot air out of the cabinet increasing air changes at the back of the cabinet. Fan speed is controlled by air temperature.
(Standard on High kW Cabinet)

>> Rear Solid Door with Swing Handle Latch
Rear Solid Door guides air to the top of the cabinet where it is expelled through a top vent by the Intelligent Fan Kit.
(Standard on High kW Cabinet)

>> Perforated Door with Swing Handle Latch
Stylish swing handle latch can be upgraded to electronic locks with a keypad or proximity card access. See page 18.
(Standard on both Low & High kW Cabinet)

Available Cabinet Options:

for both Low and High kW Cabinets



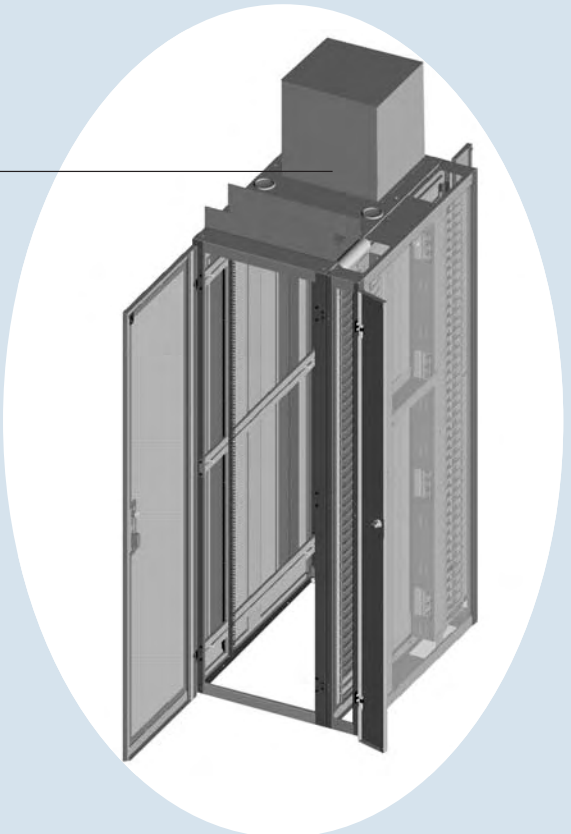
>> Therma-Stop™ Brush Side Panel
The locking Therma-Stop Brush Side Panel attaches to side of Enhanced SteelFrame Cabinet or External Cable Manager. Therma-Stop brush panels have a front and rear brush opening for cables.

>> Filler Panels
Filler Panels are used to close open rack-mount spaces. Available in 1 RMU to 12 RMU sizes.

>> Solid Side Panel
The locking Solid Side Panel attaches to side of Enhanced SteelFrame Cabinet or External Cable Manager. Provides added security and enhanced airflow by enclosing the cabinet and manager.

>> External Cable Manager
External Cable Manager attaches to the side of the cabinet to manage power and network cables and hold vertical power strips.

>> Airflow Duct
Accessory top-mount airflow duct isolates hot air from the room by transferring it into a drop ceiling plenum.
(Available for High kW Cabinet)



Combine Enhanced SteelFrame Cabinet, locking Therma-Stop Brush Side Panel, External Cable Manager and locking Solid Side Panel to create multi-cabinet bays. Add Filler Panels to close off open rack-mount spaces. Add Airflow Duct to High kW Cabinet for maximum cooling. Electronic Locks and Environmental Monitoring can be added to either cabinet. (see page 18)

Enhanced SteelFrame Cabinet

New!

The Enhanced SteelFrame Cabinet provides 45 rack-mount spaces for equipment and supports 2000 lb. Two styles of cabinets are available. Use Low kW Cabinet with perforated front and rear doors to support front-to-rear airflow in a traditional hot aisle/cold aisle configuration. When heat (power) loads reach five kilowatts, use the High kW Cabinet with solid rear door and top fan to increase air changes through the cabinet and encourage isolation between chilled source air and heated return air. This model can be further enhanced with the top-mount Airflow Duct.

Enhanced SteelFrame is delivered assembled with a front and rear door and vented top panel. The High kW Cabinet includes the Intelligent Fan Kit. Enhanced SteelFrame is 24" wide and fits over 2' x 2' floor tiles making placement of cabinets easy. Use with External Cable Manager and locking side panels to create a bay of cabinets.

Enhanced SteelFrame Cabinet		
Part Number	**Description**	**Shipping Weight**
16141-701	Low kW Cabinet, Perforated Front Door, Perforated Rear Door, 36"D	192 lb
16141-702	High kW Cabinet, Perforated Front Door, Solid Rear Door, 1000 CFM Top Fan, 36"D	212 lb
16142-701	Low kW Cabinet, Perforated Front Door, Perforated Rear Door, 39"D	200 lb
16142-702	High kW Cabinet, Perforated Front Door, Solid Rear Door, 1000 CFM Top Fan, 39"D	221 lb

External Cable Manager

New!

The External Cable Manager attaches to the side of Enhanced SteelFrame Cabinet and creates a secure space for network cables and power strips outside of the rack space. Inside the manager, a front and rear vertical pathway for cables and four front-to-rear cable troughs make it easy to route cables up or down and from the front to the rear of the cabinet. Openings on the vertical cable managers align with each rack-mount space in the cabinet. External Cable Manager includes a solid front and rear locking door. The bottom is solid, but includes two Therma-Stop Brush Grommets allowing cables to enter from under a raised floor. The top is open at the front and rear above each of the vertical cable managers. Choose a 6" wide or 12" wide cable manager that matches the depth of the supporting cabinet. Order locking brush or solid side panels separately.

External Cable Manager		
Part Number	**Description**	**Shipping Weight**
16144-750	External Cable Manager, 6"W x 36"D	111 lb
16145-750	External Cable Manager, 12"W x 36"D	127 lb
16144-740	External Cable Manager, 6"W x 39"D	114 lb
16145-740	External Cable Manager, 12"W x 39"D	131 lb

Filler Panels

The Filler Panels are flat, solid panels that are used to close open rack-mount spaces in Enhanced SteelFrame Cabinets. Filler Panels are a critical component of the cooling solution for every cabinet. Filler Panels work with the Integral Air Dam in Enhanced SteelFrame Cabinets to prevent hot air at the rear of the cabinet from returning to the front of the cabinet thereby assuring delivery of the coldest available air to equipment.

Filler Panels		
Part Number	**Description**	**Shipping Weight**
30026-701	Filler Panel, 19"W x 1 RMU	1 lb
30026-702	Filler Panel, 19"W x 2 RMU	1 lb

Side Panels

New!

The locking Side Panels are added to Enhanced SteelFrame Cabinets and External Cable Managers to keep hot air from moving from cabinet-to-cabinet. Solid and Therma-Stop™ Brush Side Panels are available. Solid Side Panels are used on the ends of bays of cabinets. Therma-Stop Brush Side Panels have a brush opening along the front and rear edge that allows cable pass-through. Therma-Stop Brush Side Panels are used in between cabinets and External Cable Managers. Select side panels to match the depth of the supporting cabinet or manager.

Side Panels		
Part Number	**Description**	**Shipping Weight**
12612-750	Locking Solid Side Panel, 36"D	39 lb
12612-740	Locking Solid Side Panel, 39"D	44 lb
16143-750	Locking Therma-Stop™ Brush Side Panel, 36"D	63 lb
16143-740	Locking Therma-Stop™ Brush Side Panel, 39"D	68 lb

Airflow Duct

New!

The most effective cooling solution removes hot air from the back of the cabinet so that it does not mix with air in the room. Airflow Duct attaches to the top of Enhanced SteelFrame Cabinet creating a closed hot air return between the back of the cabinet and the drop ceiling space above the cabinet.

Airflow Duct		
Part Number	**Description**	**Shipping Weight**
16148-700	Airflow Duct	14 lb

Intelligent Fan Kit

New!

The Intelligent Fan Kit attaches to the top of the cabinet and removes hot air from the rear of the cabinet. Included with the High kW Cabinet where the solid door is standard.

Intelligent Fan Kit		
Part Number	**Description**	**Shipping Weight**
16146-701	Intelligent Fan Kit, 1000 CFM	38 lb

CPI Cabinet Systems

Additional CPI Cabinet Options —

The total CPI Cabinet Solution integrates all of the fundamental aspects helping you to improve the lifespan, decrease downtime and increase long-term returns of your data center equipment. CPI Cabinets provide the strength and security to support all of your rack-mount computer and data center equipment with a load rating up to 2,000 lb. Crafted from aluminum or steel following strict company guidelines, the high quality construction and workmanship of CPI Cabinets add to the security of your equipment and the overall peace of mind that IT managers feel when using our products. CPI Cabinets include four vertical mounting rails that can be adjusted in depth to fit server dimensions from virtually any manufacturer. By also featuring RMU markings on mounting rails CPI assists you in simplifying equipment installation and reorganization within the data center. Fully configured CPI Cabinets include locking doors to provide access security, a top panel and removable side panels to shelter equipment. A vented top panel with cable pass-through ports for cable entry offers enhanced thermal management for equipment and cabling. Choose from a wide selection of stylish cabinets with your choice of finishes, doors and side panels to suit varying aesthetic appeals.

>> M-Series MegaFrame® Cabinet System
The M-Series MegaFrame is a highly customizable cabinet system meeting the needs for unique applications. This enclosure offers a load rating of 2,000 lb and rack-mount width of 19" or 23". Integrated vertical cable management with 3"of cable capacity per cabinet side is an added benefit along with the wide variety of sizes, mounting rails, locking security measures and packaged kits available.

>> C-Series SlimFrame™ Cabinet System
The C-Series SlimFrame features the MegaFrame Cabinet in a smaller 24" footprint matching the dimensions of a standard raised floor tile and optimizing floor space. This cabinet system provides a load rating of up to 2,000 lb, has a rack mount width of 19" and includes integrated vertical cable management allowing 1" of cable capacity per enclosure side.

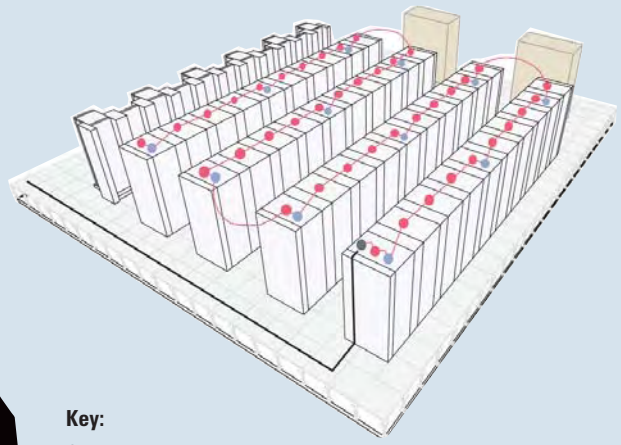
>> E-Series ISP Co-Location Cabinet System
The ISP Co-Location Cabinet is useful for spaces that require separate, secure compartments for multiple users. The E-Series ISP Co-Location Cabinet has three separate lockable compartments, offers a total load rating of 2,000 lb and has rack-mount width of 19" or 23". Three different users can occupy one cabinet system. This is achieved through the patented channel raceways that isolate cable management in each compartment and the eight outlet power strips that are present in each compartment.

>> T-Series SteelFrame Cabinet System
The T-Series SteelFrame Cabinet is a cost-effective solution which shares the essential functions of other CPI cabinets. The sturdy welded steel construction of this cabinet system offers a 2,000 lb load rating and 19" of rack-mount width. Serving as CPI's most affordable cabinet the T-Series SteelFrame has integrated vertical cable management with your choice of 1" or 3" of cable capacity per side.

>> Seismic Frame® Cabinet System
The Seismic Frame provides the best protection in earthquake-prone areas. CPI's Seismic Frame is a special MegaFrame-style cabinet with additional internal steel bracing that stiffens and strengthens the frame. It provides an 800 lb load rating, 19" rack-mount width and is Zone 4 compliant to Bellcore GR-63-CORE for Network Equipment Building Systems (NEBS) to meet job specifications. The Seismic Frame has integrated vertical cable management with 3" of cable capacity per side.

To view the full range of CPI Cabinets please visit *www.chatsworth.com/cabinets*

Security and Equipment Monitoring



Key:

- Communication Module
- Lock Modules
- Sensor Modules

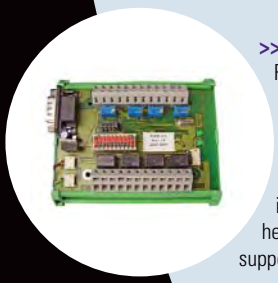
While CPI thermal management solutions provide excellent protection for your equipment, sometimes that equipment is so highly mission critical or equipment deployment changes are so prevalent that you will appreciate the additional security that comes from accurate, easy-to-install environmental monitoring. CPI's environmental monitoring solution will give you the ability to remotely watch and record temperature and humidity conditions at various user-defined points within the cabinet, so you can rest assured that your equipment is operating within specified, safe limits or precisely monitor the impact of applications changes you have initiated. Temperature and humidity information will help you respond to dangerous trends before they would otherwise become apparent through some catastrophic failure.

In addition, where the physical security of the room itself and standard locking cabinets represent an inadequate security level because of the high mission criticality of the data and/or diverse population, higher levels of access control and records of access may be necessary considerations. CPI's electronic access control systems allow you to grant access rights by person by cabinet by time and provide an audit trail of all activities.

>> Electronic Locks Upgrade

Contact CPI Technical Support to upgrade the locks on your cabinet. Electronic locks can be controlled through an Internet connection or with a keypad or proximity card reader on the cabinet door. Up to eight locks (four cabinets) can be controlled from a single Lock Control Module. Each handle is upgraded with an Electronic Lock Upgrade Kit. Add a Keypad Module and Proximity Card Reader Module to gain access at the cabinet.

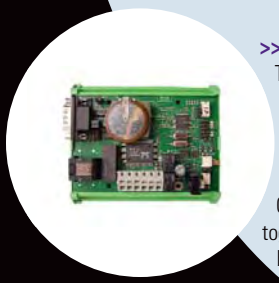
Electronic Locks Upgrade		
Part Number	**Description**	**Shipping Weight**
16147-003	Lock Control Module	1 lb
16147-010	Electronic Lock Upgrade Kit	1 lb
16147-008	Keypad Module	2 lb
16147-009	Proximity Card Reader Module	2 lb



>> Environmental Monitoring

Place sensors in cabinets to measure temperature and humidity or detect smoke or a door open condition. Environmental monitoring lets you set limits and be notified if there is a condition that will harm equipment. Monitoring provides a record of conditions, helping you improve equipment storage by more evenly distributing heat load through the data center. Each Sensor Module will support four sensors.

Environmental Monitoring		
Part Number	**Description**	**Shipping Weight**
16147-002	Sensor Module, 4 Sensors	2 lb
16147-004	Temperature Sensor	1 lb
16147-005	Humidity Sensor	1 lb
16147-006	Smoke Sensor	1 lb
16147-007	Door Open/Closed Sensor	1 lb



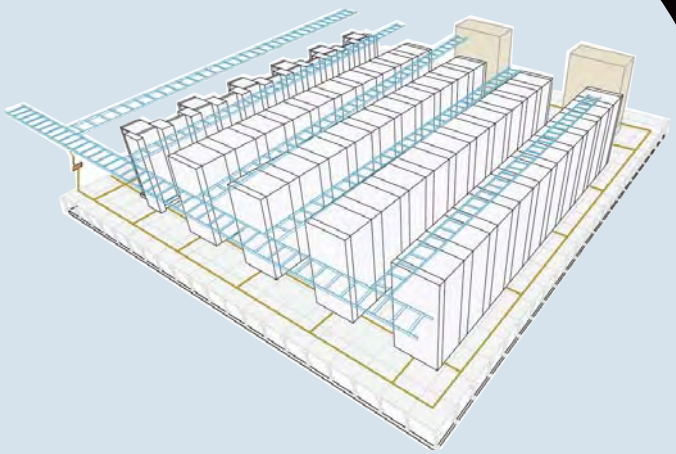
>> Network Connections

The Communications Module connects the Lock Control Modules and Sensor Modules to the network so that conditions can be monitored over a web interface. Each Communications Module can support any combination of up to 64 Lock Control or Sensor Modules. Connect all modules together with network cables. Use rack-mount bracket in each cabinet to hold modules and use one power supply per 64 modules.

Network Connections		
Part Number	**Description**	**Shipping Weight**
16147-001	Communications Module	1 lb
16147-011	Network Cable, 9'L	1 lb
16147-012	Network Cable, 6"L	1 lb
16147-013	Power Supply	1 lb
16147-014	Rack-Mount Bracket	1 lb

Grounding and Bonding

High speed network connections along with billions of transistors can create static buildup causing high frequency signals to stray on and around equipment and cables. To prevent this type of activity it is important to choose reliable grounding and bonding products. Bonding your racks, cabinets and cable pathway components to an alternate ground – the telecommunications ground – provides a safe alternate pathway for stray currents that may be present outside of the electrical system.



The TIA-942 Standard suggests a grounding method that involves constructing a signal reference grid under the raised floor. This signal reference grid includes #8 or larger copper wires spaced on 2' to 10' centers and should be bonded in an intersecting pattern. Raised floors, racks, cabinets, cable trays, and building columns need to be attached to the signal reference grid wires and then the grid attaches to the Telecommunications Grounding Busbar.

CPI offers all of the components necessary to create the signal reference grid and to bond racks, cabinets and cable pathways to the grid and Telecommunications Grounding Busbar.

Grounding Busbars & Lugs		
Part Number	**Description**	**Shipping Weight**
40158-020	Busbar & Lugs, 20"L x 4"H	11 lb
40165-001	Compression Tool, Dieless	5 lb
40168-801	Antioxidant, Copper-to-Copper	1 lb

C-Type Compression Taps		
Part Number	**Description**	**Shipping Weight**
40163-001	C-Type Compression Tap, #6 to #6	1 lb
40163-051	C-Type Compression Tap, #6 to #6, 50 Pack	3 lb

Ground Terminal Block		
Part Number	**Description**	**Shipping Weight**
40167-001	Ground Terminal Block	1 lb
40167-010	Ground Terminal Block, 10 Pack	10 lb

Rack-Mount Busbars		
Part Number	**Description**	**Shipping Weight**
10610-019	Horizontal Rack Busbar, 19"W	2 lb
40161-036	Vertical Rack Busbar Kit, 36"H	6 lb
40161-072	Vertical Rack Busbar Kit, 72"H	7 lb

Cable Jumper		
Part Number	**Description**	**Shipping Weight**
40159-009	Ground Jumper, 9'L	2 lb

Cable Runway Ground Strap Kit		
Part Number	**Description**	**Shipping Weight**
40164-001	Ground Strap Kit	1 lb
40164-025	Ground Strap Kit, 25 Pack	12 lb

FastTrac™ Cable Tray Ground Bolt		
Part Number	**Description**	**Shipping Weight**
13375-001	Ground Bolt	1 lb

>> Grounding Busbars & Lugs
Grounding Busbars are wall-mounted consolidation points for ground connections within the data center. The busbar listed in the chart includes an assortment of Lugs used to terminate ground wires from the signal reference grid, overhead pathways and other structures. Lugs bolt to the busbar. A special crimping tool is required to attach ground wires to lugs. Antioxidant is used between the lug and busbar.

>> C-Type Compression Taps
C-Type Compression Taps connect ground wires together and can be used to create a signal reference grid from copper wires. Taps form a secure connection and bond wires. Taps are selected to match the size of the wires. A hydraulic crimping tool is required to close the tap around the wires.

>> Ground Terminal Block
Ground Terminal Block attaches a ground wire size #14 through 2/0 AWG to a rack or cabinet.

>> Rack-Mount Busbars
Provide multiple ground connection points for equipment chassis on racks and in cabinets. Busbars attach to equipment mounting rails. 19" rack-mount and vertical busbars are available.

>> Cable Jumper
Attach Cable Runway to the busbar with the Ground Jumper.

>> Cable Runway Ground Strap Kit
Bond Cable Runway sections together at each splice with Cable Runway Ground Strap Kit.

>> FastTrac™ Cable Tray Ground Bolt
Connect a ground wire to FastTrac Cable Tray with the Ground Bolt.

Technical Support and Customer Service from CPI

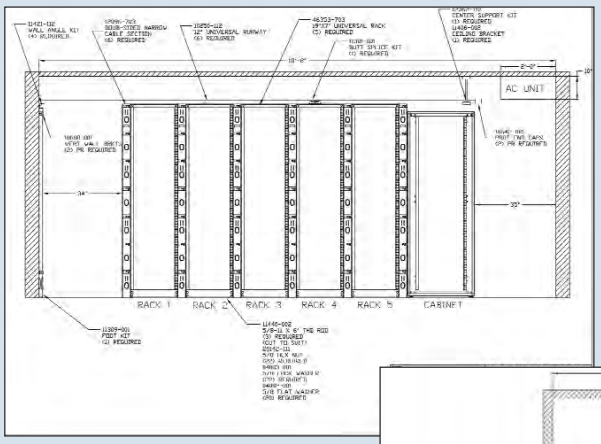
CPI understands that every data center is unique. For this reason our team includes highly trained Technical Support Specialists and Customer Service Representatives to help solve your IT infrastructure needs.

The Technical Support Specialists at CPI can help design the precise layout for your data center including the appropriate sized racks, cabinets and cable managers based on your specific requirements. These specialists will also plan your cable runways or cable tray pathways and provide a detailed bill of material along with layout drawings of cable pathways and cabinet configurations.

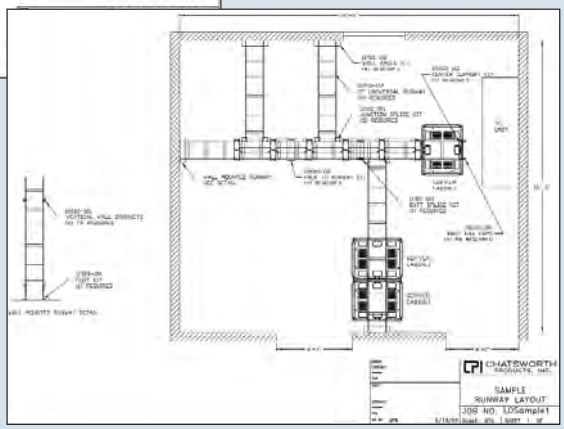
CPI Customer Service Representatives offer valuable assistance by locating distributors in your area that can provide the CPI products you need. Our representatives work closely with distributors to maintain product availability, ultimately helping to preserve your projects scheduling requirements.

To speak with one of our Technical Support Specialists or Customer Service Representatives contact us at 800-834-4969.

CAD layout samples available from CPI Technical Support



Elevation/Front View



Plan View

>> Configuration Assistance - Expert guidance in choosing the right product for your application

>> Layout Drawings- Custom elevation and plan view drawings

>> Bill of Material (BOM)- Detailed listing of selected products

>> MasterFormat™ Division - 27 Specifications Download minimum composition requirements and installation methods at *www.chatsworth.com/designtools*

>> Product Information - Receive comprehensive product and delivery information

>> Locate Distributors - Contact Customer Service at 800-834-4969 or visit *www.chatsworth.com/distributors* to locate a distributor in your area

The CPI Product Configurator

The Product Configurator is an easy-to-use on-line tool that guides you through the steps and selections necessary to create customized two-post, four-post and wall-mounted systems.

While navigating through this tool you are presented with product descriptions and details helping you decide on the system to configure. After deciding on the system to configure you are offered a variety of options and accessories to customize the system made-to-order for your specific needs. The Product Configurator is error proof, it will only allow you to configure the pieces and parts that work together and make sense, and therefore you do not end up with unnecessary products. Once your solution has been built, the Product Configurator will automatically present you with an itemized suggested list price for every component and an overall suggested list price for the complete configured solution — this helps you to achieve a desired price as you have the ability to change pieces and parts to maintain a price you are comfortable with. You will also receive rendered drawings and a selection of global distributors or resellers that carry your solutions. Visit the Product Configurator at *www.chatsworth.com/configurator*.

NEW CPI Product Configurator

>> Design Drawings - 2-D line drawing view for technical information
- PDF format - can be used in proposals or bids and is a universally readable format that is easy to e-mail and print
- DXF format - can be used by CAD programs for insertion into existing layouts, or as an add-on

>> Design Images - Rendered 3-D view can be inserted into other CAD drawings

>> Design Reports - Parts list or BOM includes part numbers, descriptions, quantity and suggested list pricing

>> Downloadable Files - Product Documentation Center is an easy and quick way to retrieve printable product specific documentation to support bids and proposals. Within the Product Documentation section you will find cut sheets, quick reference guides, data sheets, installation instructions, brochures, FAQs, product images and drawings. Visit the Documentation Center at *www.chatsworth.com/doc_center.asp/*

>> Locate a Distributor - Completed BOMs can be sent directly to the distributor of your choice. Locate the distributor in your area at *www.chatsworth.com/distributors*

Fast Fact

Custom Products

New products often begin as customer requests. CPI can customize a solution based on your needs and requirements. Simply call CPI Technical Support at 800-834-4969 or customize your system via the online tool 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 deliver superior structural support that exceeds customer expectations through innovation, function and performance. Unequalled 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

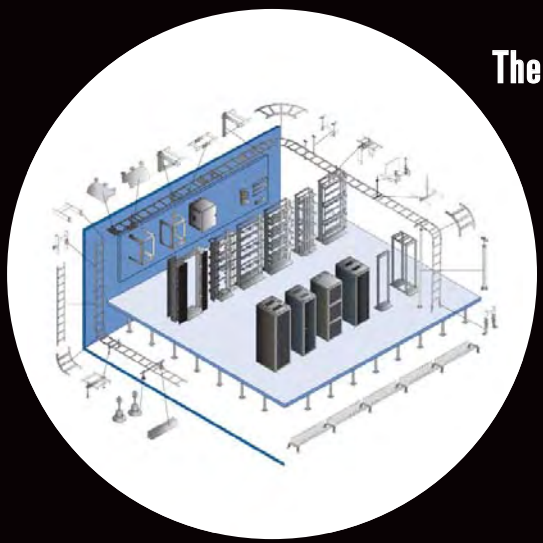
Broad Product Selection
Customized Configurations
Adaptable for Future Applications

Availability

Global Network of Distributors
Short-Factory Lead Times
On-time Delivery to Meet
Scheduling Needs

Reliability

High Quality Products
Customer Service & Technical Support
Heavy Duty Packaging
UL Listed and Certification



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 DataCenter Solutions at
www.chatsworth.com/datacenter
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techsupport@chatsworth.com

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