

Rittal – The System.

Faster – better – everywhere.

Colocation Infrastructure

Solutions for the Colocation Market



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES



FRIEDHELM LOH GROUP

Today's Colocation Marketplace



Colocation facilities have fast become the alternative to on-site data centers. More organizations are migrating their workload and IT infrastructure to private, public, and hybrid cloud platforms to reduce downtime and expenses while increasing network, operational, and physical security, efficiency, and power and cooling capabilities. Modern colocation facilities featuring state-of-the-art and highly reliable redundant infrastructure supported by climate control systems offer services to address networking and computing challenges of today.

Challenges to Colocation Growth

Despite the abundant opportunities for growth in the industry, colocation providers face significant challenges across the board for scaling operations and keeping up with market demands. Decision makers in the implementation process seek fast speed to market, highly available solutions, improved value and ROI, broad design capabilities, ease of installation, and more to maintain a growth trajectory.

Challenges Facing Colocations:

- Long deployment cycles
- Limited product availability
- Lack of standard offerings
- Demanding installations
- Energy efficiency
- Accessory incompatibility



How Rittal Optimizes Your Colocation Business

As the world's largest enclosure manufacturer, Rittal offers an unparalleled range of products and solutions with years of experience providing enclosures to many of the top data center facilities in the world. Our preconfigured solutions are designed to match colocation-specific requirements while simplifying ordering, reducing deployment costs, and delivering effortless scalability.

- In-stock rack solutions
- Comprehensive, standardized, preconfigured designs
- Solutions for initial construction, expansion, and operations
- Simplified ordering process
- Lower deployment costs
- Simple scalability
- Ensured system compatibility
- Global support and service
- Rittal quality and reliability



Your Single Source for Comprehensive IT Infrastructure Solutions

Businesses seeking to implement their own solution at colocation facilities are often challenged with product complexity and interoperability issues. From enclosures to power, cooling, and security, customers can become overwhelmed with vendors, manufacturers, and technologies. By offering complete, pre-engineered, and modular systems and solutions, Rittal effectively eliminates the burden of matching individual IT infrastructure components that may not be optimally utilized together. Rittal IT infrastructure solutions provide comprehensive platforms for IT assets that are not only simple to order, fast to ship, and easy to deploy, but also easy to scale and grow with. Combine this with the excellent quality Rittal is known for and you have a winning solution that can open doors on a global scale.

Preconfigured and Scalable Systems for Colocations:

- Enclosures
- Climate Control
- Power
- Monitoring
- Security



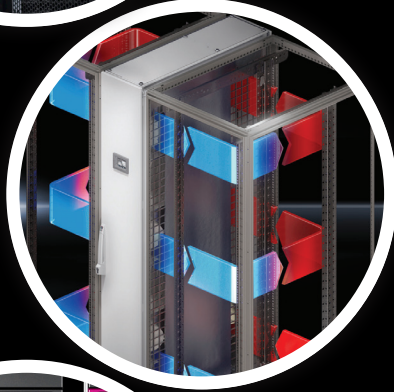
Rittal's modular enclosures are integral to success and serve as building blocks to meet growth challenges now and well into the future. Security, power, cable management, air flow/thermal management and remote monitoring can be integrated into a single solution. With Rittal's global footprint, IT managers can be assured their solution is field-proven and scalable worldwide.

- Enclosures designed to support moves, adds, and changes
- Products that conform to global certification standards
- Cooling systems that scale with your application
- Wide range of PDU options to meet current and future requirements
- Security configured for one enclosure or an entire row: alarms for high temperatures, air flow interruptions, fire/smoke, and unauthorized entry



Enclosures:

Rittal is the largest manufacturer of enclosure solutions in the world. Our expertise is rooted in decades of engineering and manufacturing experience that translates to quality enclosures with ergonomic designs that meet our customers' requirements. With enclosures designed specifically for the colocation industry, Rittal provides solutions that are quick to deliver and implement.



Climate Control:

Colocation spaces feature some of the most strenuous cooling demands. That's why Rittal provides the most energy efficient climate control solutions on the market. Liquid Cooling Packages (LCPs) deliver inline, closed-loop cooling for rows of enclosures, while highly efficient open-loop climate control solutions for room cooling are also available. For edge solutions that support colocation construction and operations, Rittal Blue e+ rack cooling units provide up to 75% energy efficiency gains.



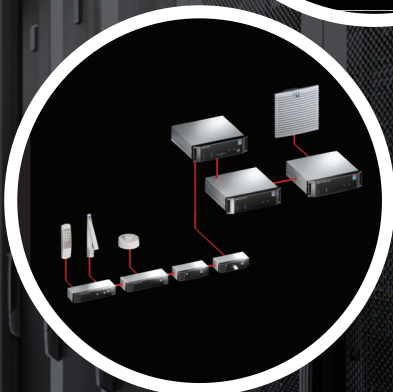
Power:

Offering both efficiency and control, Rittal's selection of robust power distribution units (PDUs) are ideal for businesses that rely on optimal performance from their critical IT equipment. PDUs are available in a wide range of capacities to support any installation density.



Monitoring:

The Rittal Computer Multi Control (CMC) III Monitoring System permits robust monitoring and controlling of your IT infrastructure systems with easy-to-track data and reporting. Now, IT personnel can remotely monitor temperature, humidity, pressure, smoke, leaks, and physical breaches to keep IT assets secure and operating at optimal performance levels.



Security:

While the versatile CMC III remote monitoring system provides convenient security monitoring, colocation IT equipment can also be secured from entry with combination lock handles. With both electronic access control and remote monitoring of enclosure access, IT assets can be thoroughly protected from tampering.

TS IT Colo Enclosure



The TS IT Colo enclosure provides more internal usable volume to support the highest cable and component installation densities. With no internal obstructions, both the OJ space and interstitial space between adjacent enclosures are maximized for installation availability. With USA-based manufacturing, a wide range of accessories, and dimensions currently favored by US colocations, Rittal's cutting edge platform helps your business unlock the future of colocation.

- Readily available solutions
- Manufactured in the USA
- Comprehensive, standardized designs
- Simplified ordering and installation
- Flexible, scalable, and modular
- Engineered for IT component installation
- Wide variety of accessories
- Rittal quality and reliability



Cabinet Specifications:

- Fully-welded steel frame (RAL9005 / black)
- Maximum load bearing capacity 3200lbs
- Perforated front door
- Split perforated rear door
- Twin brush cable entry roof
- 3-digit combination handles with override key (front and rear)
- 19" adjustable floating EIA rails, front and rear
- Vertical brush air baffle installed on front 19" EIA rails
- 8.5" (215mm) wide cable management / PDU wall (installed on rear right)
- Full size, slide-in/removeable partition wall (installed on left side)
- Hardware bag includes: Baying kit, Dual PDU mounting brackets (1 set), M6 cage nuts and screws (50 sets), and Grounding kit
- Standard end of row side walls available



CS Toptec Outdoor Edge Solutions

Rittal standard outdoor solutions – Six good reasons to ensure you are prepared and protected and keeping your installations safe and secure



Security with a long service life – long-term investment



Instant availability as a modular system – no loss of time



Wide temperature range – safe protection in all climate conditions



Sustainability – protect the environment and reduce your carbon footprint



Global service network



Convenient installation and servicing – fast commissioning, minimal downtime



Unused rack space in the colocation facility is a lost revenue opportunity. Both critical and non-critical systems for internal use are required to keep the site running smoothly but take up space that could otherwise be used for customers. The solution is simple: move the enclosure outside, in the parking lot, or on the roof with the Rittal CS Toptec outdoor enclosure.

- Maximize usable space within a colocation facility
- Complete environmental protection for IT assets against harsh weather, heat, cold, moisture, dust, and debris
- Preconfigured, standardized outdoor edge solution
- Most energy efficient enclosure cooling unit on the market
- Fully self-contained footprint
- Modular, scalable, and flexible
- Comprehensive solution, including enclosures, climate control, power, monitoring, and security
- Engineered to ensure compatibility with a wide variety of IT and network components
- Global support and service

CS Toptec Features & Benefits:

- High resilience with a UV-resistant paint finish and aluminum and stainless steel construction
- Blue e+ air conditioning units offer energy savings up to 75% and are suitable for a wide temperature range (-22°F to +140°F)
- High protection ratings: Toptec enclosure, IP 55 / IK 10; Cooling units, IP 56 and UL Type 4, 3R, 12
- Double walled design provides passive heat dissipation and reduced influence of sun exposure
- Door cut-outs and adaptors contribute to a uniform design and fast mounting of the climate control components
- Comprehensive range of accessories for optimal functionality (enclosure heater, thermostat, hygrometer, IoT interface)
- Suitable for worldwide deployment thanks to international approvals and local availability



Micro Data Center (MDC) for construction and expansion



The MDC offers colocation providers a preconfigured and standardized IT infrastructure solution for construction and expansion projects. These qualities make the MDC quick to deploy and simple to scale and repeat with continued expansion. Colocation IT assets are easily secured and supported with an MDC solution while remote monitoring enhances control for IT personnel. Add the Blue e+, the most energy efficient enclosure cooling unit on the market, and you have a complete solution ready for your colocation facility today.

- Promote optimal operations for IT assets during construction and expansion projects
- 42U MDC with 2.6kW or 5.8kW Blue e+ cooling unit
- Complete environmental protection for IT assets against heat, cold, moisture, dust, and debris
- Preconfigured, standardized indoor edge solution
- Most energy efficient enclosure cooling unit on the market
- Self-contained footprint
- Modular, scalable, and flexible
- Comprehensive solution, including enclosures, climate control, power, monitoring, and security
- Quick to deploy
- Engineered to ensure system compatibility
- Global support and service

Liquid Cooling Package (LCP) for High-Density and AI Applications



Modern colocation providers are experiencing ever-growing demands for high-density installations for a range of applications, including cloud computing, data analytics, and, most notably, artificial intelligence (AI). AI harnesses powerful servers to predict scenarios, make decisions without human intervention, and create opportunities for technological advancement that may have otherwise taken years to manifest. However, this incredible computing power comes with a major challenge: high operational thermal loads. The Rittal Liquid Cooling Package Chilled Water (LCP CW) is a closed-loop cooling solution for high-density applications like cloud computing and AI that transfers heat outside the data center. This method of cooling removes high heat loads more effectively than traditional room air cooling or row-based open-loop systems, allowing for greater equipment installation densities and overall cooling performance with significantly lower energy requirements.

- Efficiently support high-density heat loads up to 53kW in AI applications
- Closed-loop solution – no room climate control required
- Self-contained footprint when paired with an IT enclosure(s)
- Support single or multiple bayed enclosure configurations
- Modular, scalable, and flexible
- Global support and service

LCP CW Features & Benefits:

- Maximum energy efficiency with EC fan technology and IT-based control
- Reduced fan power consumption due to minimal air pressure loss
- Optimum adaptability with dynamic, continuous control of the chill water supply flow
- Use of higher chilled water supply temperature (59F/15C) for potential operating cost savings
- Targeted cooling output with modular fan units
- Fan modules configurable with n+1 redundancy
- Minimal footprint: 12"(w) x 48"(d) per LCP CW
- Optimum access for maintenance and service from the front and rear
- Tool-free hot-swappable fan module replacement
- Comprehensive software for local and remote operational monitoring, control, and alarm notification



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