CRS

Our Products & Services

CRS

Since CRS was founded in 2006, we've utilised our insight, skills and experience to become an industry leader in the design, development and commissioning of physical ICT infrastructure.

Our growing market share is the result of a consistent response to customer feedback and to shifting industry requirements.

We pride ourselves on working closely with clients to deliver a solution that not only meets immediate needs but considers future requirements.

We'll continue to innovate and to meet the changing needs of the industry – we hope you'll continue to grow with us.

Brendan Dessent, Founder

CRS is an industry leader in end-to-end solutions for the data and communications industries. We offer fast turnaround times, a strong R&D focus and effective working relationships with all our customers.

Widely recognised as innovation experts in the data centre and communication sectors, the range of products and installation services offered by CRS includes the following:

- Structural ceilings
- Security caging & mech walls
- Server racks & cabinets
- Power management solutions

With a focus of maintaining long-term collaborative relationships with industry-leading technology providers, CRS strives to develop solutions that are relevant and aligned with technical innovation within the sector.

This level of collaboration and partnership has ensured that CRS continues to deliver solutions that are widely applicable to both existing and emerging data centre facilities.

We understand the current challenges our industry faces which is why we work closely with colocation providers, data centre managers and their key stakeholders, from design and construction phases through to fit-out, ensuring that we deploy solutions that exceed all expectations.

Our dedicated project managers oversee all aspects of applications, from pre-design consultation through to post installation sign-off. In-house project delivery and operations teams seamlessly coordinate field personnel for project fulfillment and ongoing service-related works. Our local warehousing supports projects and ongoing quick turn around requirements whenever necessary.

From data centre retrofits to greenfield sites, cage nuts through to containment, CRS has all your solutions covered.

Air Flow Containment

One of the core aspects for any data centre PUE and sever performance strategy today is effective rack air flow containment. It is increasingly imperative with the escalating density of server architecture that recirculation of exhaust air flows are eliminated. CRS offers a broad range of aisle containment solutions to address this issue.

At the core of the CRS solution is a purpose design and engineered aluminium extrusion panel framing system that simplifies installation and improves access to above rack services. This concept features a dual track panelling system that enables both above rack containment panels and full height rack blanking panels to slide horizontally. Panels are alternated between opposite channels along the containment aisle so that they can slide independently of the adjacent panel.
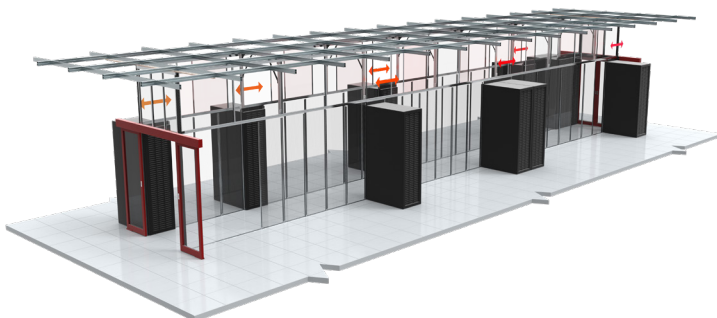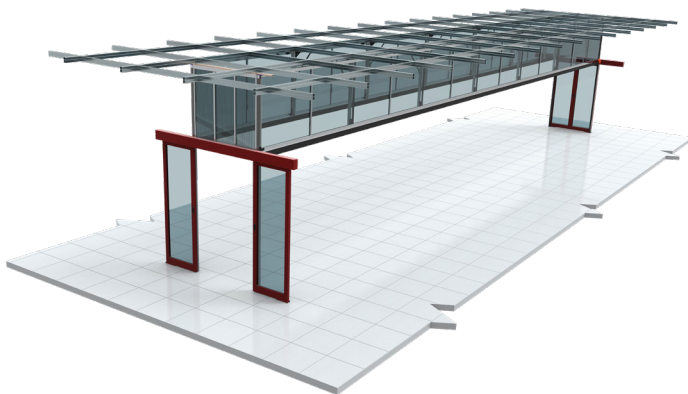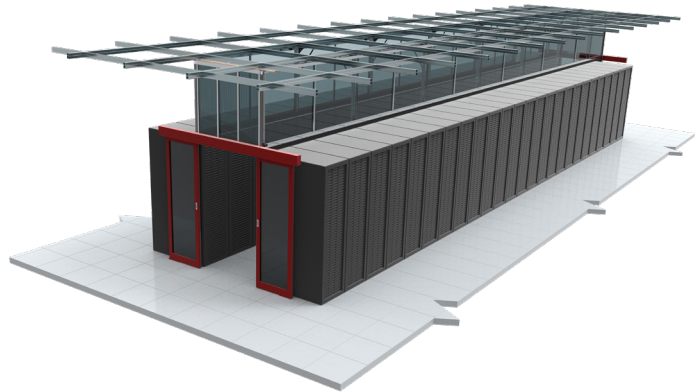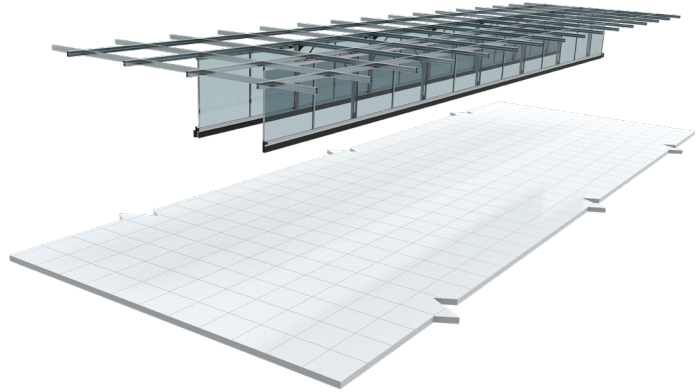
For upper containment panelling, this permits ready access to above rack services from within the aisle by sliding an individual panel sideways where required. Similarly, full rack blanking panels can be fitted to alternate tracks so that the last panel in a blanking row can abut the first rack without the need to cut or form a custom width panel to preserve the containment envelope.

All panels incorporate an engineered side channel with integral brush pile seal that maintains a high level of containment integrity between panels in adjacent channels. Following also is an outline of range of common options that CRS provide.

Hot Aisle Containment

CRS

Integrated Services HAC

- Ceiling-suspended hot or cold aisle containment solution utilising an independent containment solution affixed to the data centre ceiling, making it autonomous and free hanging.

- Can be used in conjunction with Containment through the use of full height rack blanking panels, prior to Racks/Cabinets being placed in position.

Structural Free-standing Integrated HAC

- The free-standing HAC is made from a more robust 100mm x 100mm or 150mm x 100mm framework.

- Additional cross-bracing can be implemented to satisfy the structural integrity required by certain locations.

- Blanking panels can be easily implemented to maintain containment during the absence of a rack.
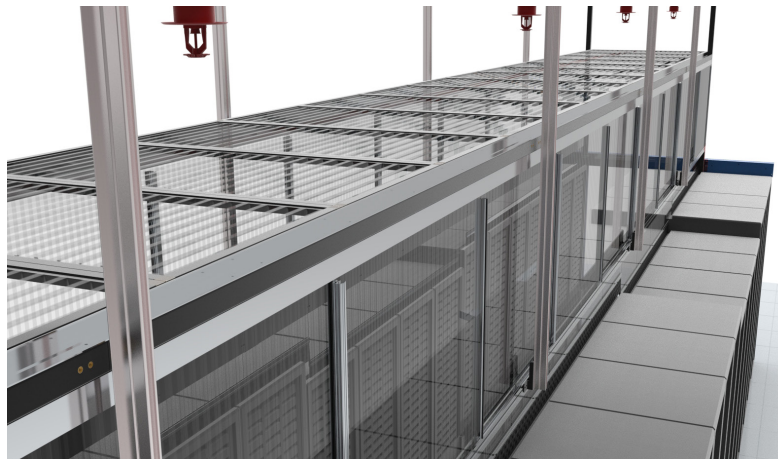
Fire Suppression Systems

CRS

Louvre Opening Panels

Louvre panels operate during a fire alarm event through the use of electromagnets, allowing fire supression services to extinguish any flames within the containment. The panels are installed on the side of the containment for any aisles that continue to a ceiling plane.


Drop Away Panels

Drop Away Roof Panels are formed from an engineered plastic designed to contract so that they fall out of their frames when the temperature reaches 60° degrees. This permits fire suppression media to freely access the full internal area of the aisle in the event of a fire.

Riser panels are available to provision for different height cabinets and to increase work space in the aisle. Custom and standard sizes are available for purchase to fit any aisle configuration.

Pivot Panels

Pivot panels are designed to be operated by a fire control system. In normal service, electromagnets hold the panels in position. When a fire alarm event occurs, power to the electromagnets is removed, permitting the panels to swing open. This permits fire suppression media to freely access the full internal area of the aisle in the event of a fire.
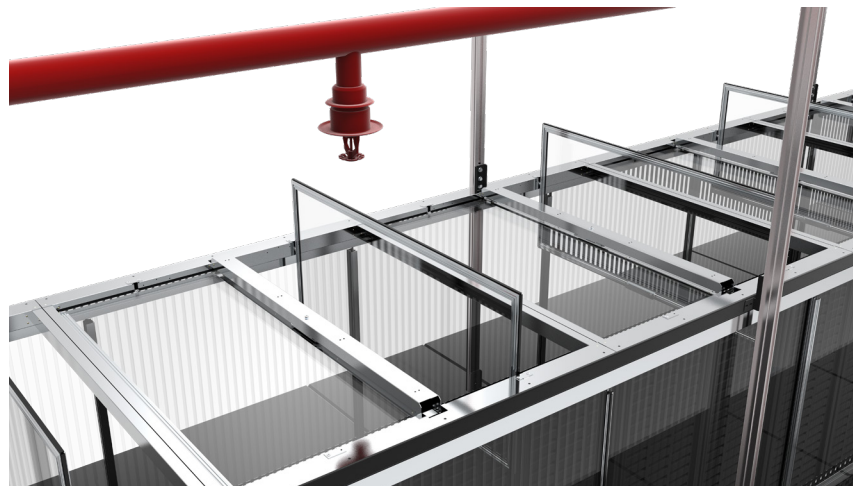
Structural Ceiling Systems

CRS

Complimenting our range of data centre specific products & services CRS manufactures & installs structural grid ceiling systems purpose developed for mission critical data centre environments.

Designed with flexibility, customization & ease of install in mind, CRS Ceiling Systems are the optimal choice for applications where complex and concentrated overhead services are required including lighting, cable trays, fibre duct, fire protection, and power busways. CRS ceiling systems allow for extremely rapid installation times providing extensive cost benefits over the more traditional & cumbersome structural ceiling systems.

All ceiling tiles are manufactured from high-quality galvanneal sheet, preventing any risk of zinc whisker contamination, and ceiling tiles are finished with powder coating to specific colour requirements. Mineral fibre ceiling tiles can also be supplied subject to application requirements.
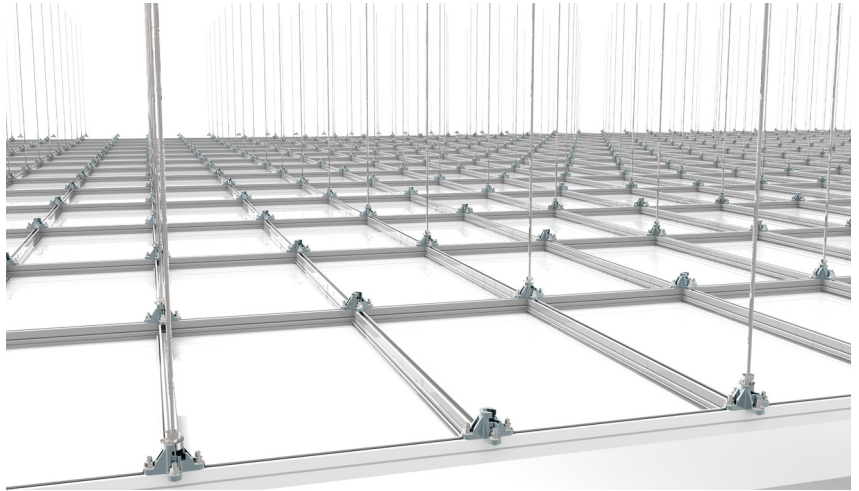
ARCHITECTURAL EXTRUDED ALUMINIUM CEILING

CRS delivers additional value through the customisation of ceiling tiles to include penetrations for mounting of other services. This includes customised tiles for installation in specific locations across complete data centre areas, including cut-outs for recessed luminaires, which delivers superior illumination results.

Penetrations for mounting a range of environmental BMS sensors can also be provided, reducing upfront procurement and installation costs in addition to providing an aesthetically superior solution.

Provided relevant information can be secured prior to final manufacture, we are happy to provide penetrations and will take the lead in coordinating with other trades to confirm required sizes and location details.

CRS provides two core ceiling grid construction types as follows:

. Architectural extruded Aluminium

. Utility roll formed steel strut
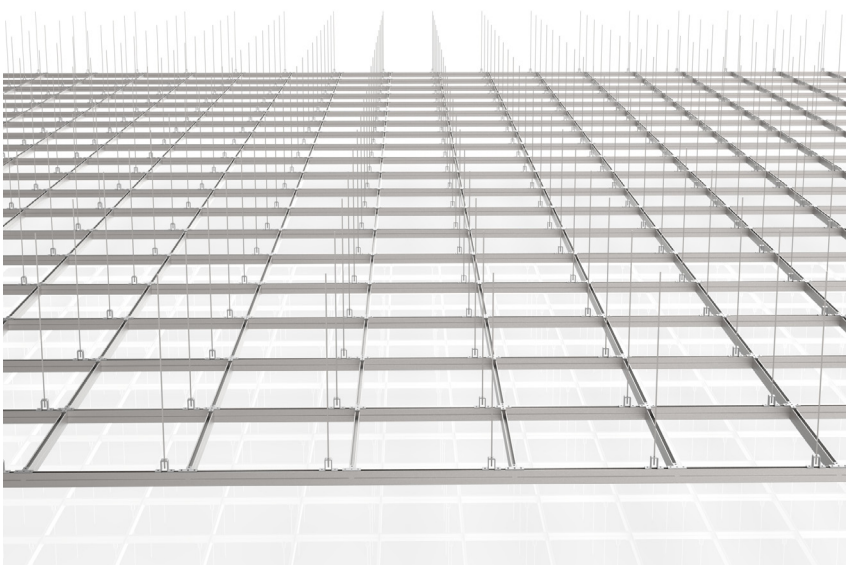
UTILITY ROLL FORMED STEEL STRUT CEILING

Structural Ceiling Systems

CRS

Architectural Structural Ceiling

This ceiling utilises a proprietary engineered grid extrusion profile with integral channels for inserting channel nuts and T-bolts for mechanical connections. The innovative grid bracket is designed to accommodate a spindle for ceiling height trimming adjustments.
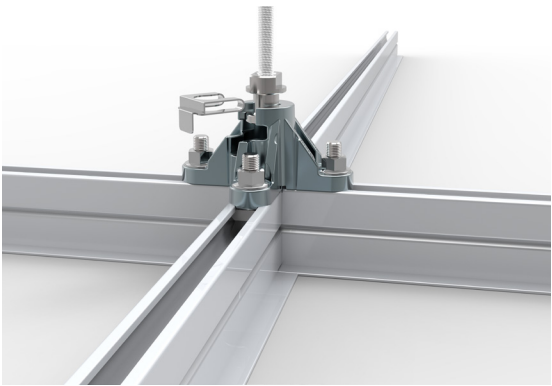
LOAD RATINGS

LOAD TYPE	General Grid (Based on 1200mm x 1200mm suspension centres)	Channel Nut to grid extrusion	Grid to suspension bracket
POINT LOAD (kN)	2.2 kN	4.2 kN	7.3 kN
UNIFORM LOAD (k/N/m2)	3.0 kPa	-	-
ULTIMATE POINT LOAD kN)	3.0 kN	5.7 kN	9.8 kN

Utility Structural Ceiling

Utilising industrial-grade, heavy-duty commercial strut channels, brackets and accessories, the utility ceiling is designed to provide a robust solution` for arduous applications.

Subject to requirements, the ceiling can support a uniform load of 5.4 kPa and a maximum mid-span point load of 3.9kN.
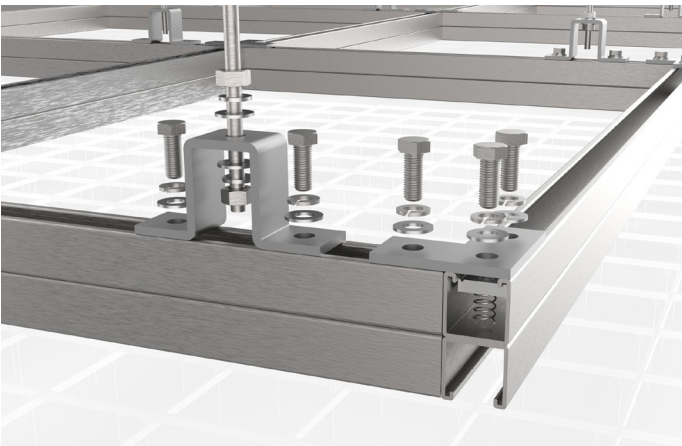
Data Centre Caging

CRS

CRS security caging solutions are custom designed and built to provide high-level security solutions for computer rooms, server rooms and colocation data centres.

The fully modular construction provides unparalleled flexibility, allowing for ease of assembly in difficult locations as well as readily enabling future expansion if necessary.

With an extensive height range, solutions also extend to sub-floor and above ceiling plenum spaces to provide comprehensive and complete area confinement.

Each cage panel is manufactured from either security mesh or sheet steel and is supplied in sizes that correspond with standard data hall grids.

A range of door options are available including swinging or sliding doors which are manufactured to specific widths.

Our designs offer uncompromised cable access and utilise concealed fixings from the secure wall side.
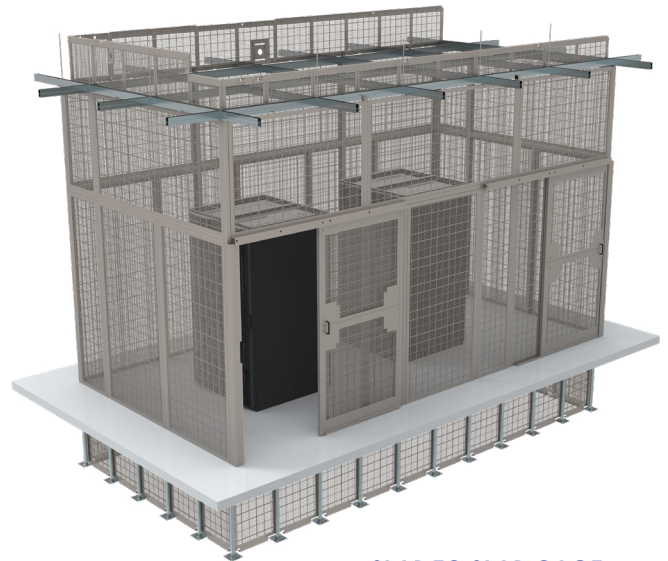
SLAB TO SLAB CAGE

- SCEC compliant

- Large hyperscale cloud provider security compliance

- Design incorporates features to enable additional Cage Walls to be added for expansion if necessary.

- Robust construction to maintain integrity of security visibility and airflow

- All panel/post connections utilize concealed fixings from the secure wall side

- New design allows for the removal of tiles under the cage wall

- Caging solutions can be customized to any environment

- Our designs offer uncompromised cable access whilst maintaining specified security requirements.
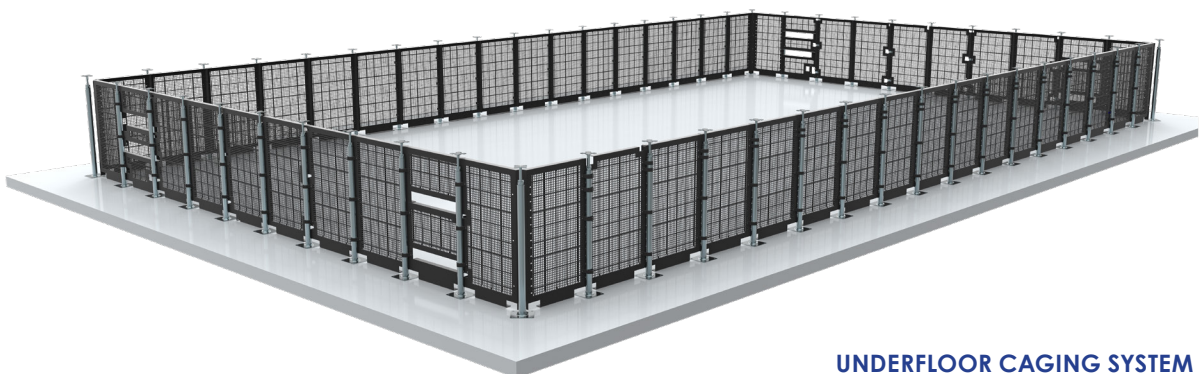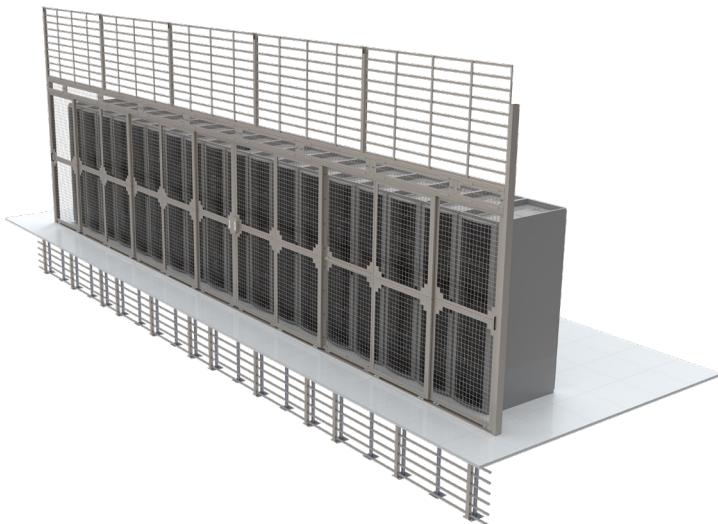
UNDERFLOOR CAGING SYSTEM

Cage Types

CRS

STANDARD 2.4M

Designed around 600mm x 600mm RAF Floor tiles, our standard data centre cages serve to offer high level security and functionality for your server rooms and colocation data centres. Available in both perforated and solid style panels, the modular design means that the cage can be added to or modified with minimal effort and impact on the surrounding environment.

ABOVE CAGE

Available in solid or perforated panels as well as prefabricated welded tube sections. Bridging the space between the top of the standard cage and the false ceiling, the barriers are fixed into position via a channel system mounted vertically to existing floor-to-ceiling posts, providing additional security and peace of mind above the standard height cages. Customised penetration flanges are designed and installed around services to preserve security plane integrity.

UNDERFLOOR

Used to provide an impenetrable barrier under the Raised Access Floor (RAF). Like our standard cages, these barriers are installed to prevent underfloor access between customer cages. Underfloor barriers are available in panels, SL81 Mesh or tubular sections fixed to the under-floor section using secure tamper proof fixings on the internal side.

IN-CEILING

Consistent with our underfloor offering, In-Ceiling barriers provide an extremely robust impenetrable barricade within the false ceiling of the data centre. The solution provides the same uncompromising security as our other cage styles whilst also providing unrestricted airflow in the plenum, meaning return air flow is unaffected.
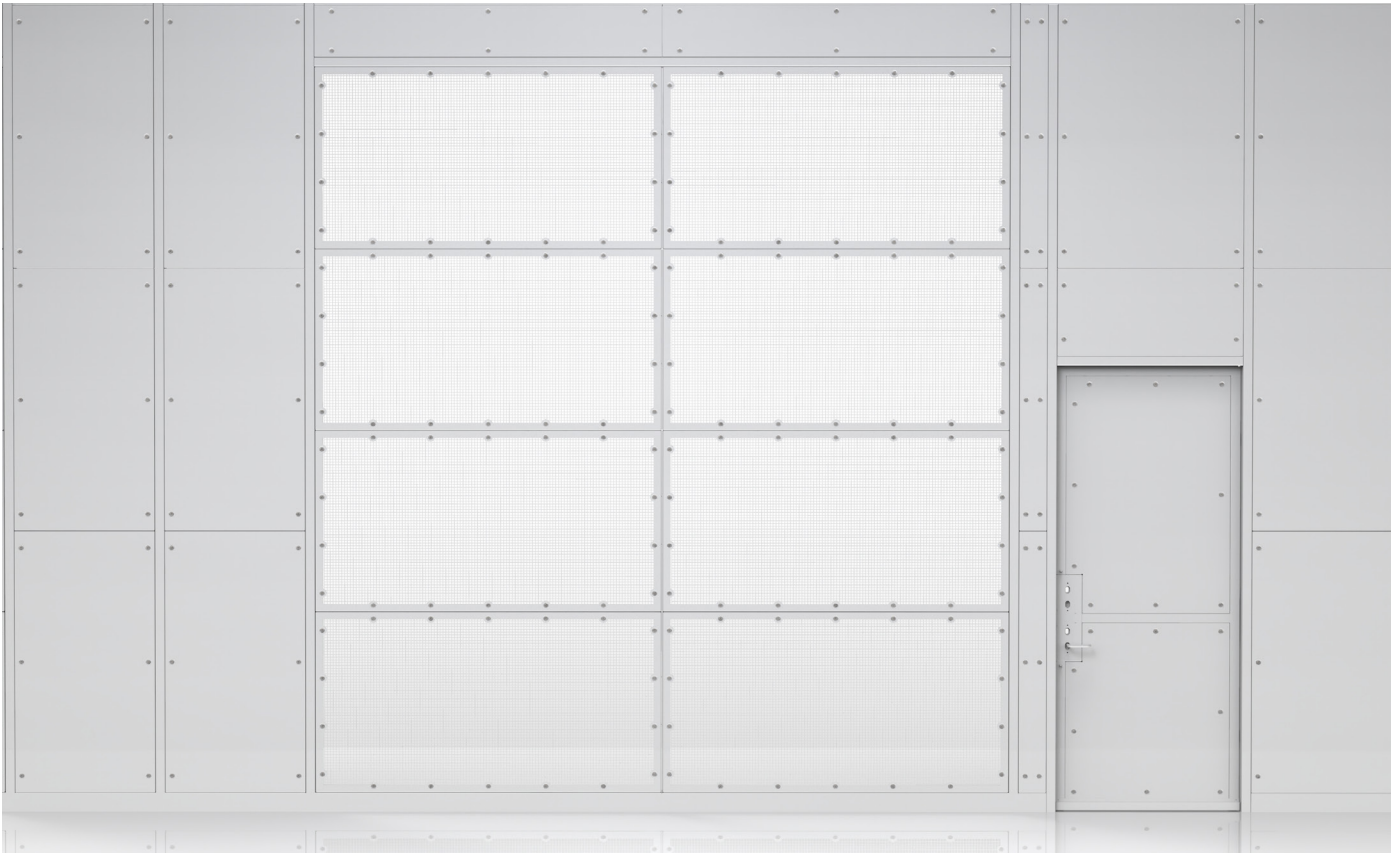
SPECIALISED

Designed for deployment in government/defence applications, our specialised solutions are customer specific and adhere to strict standards set by government agencies and organisations where security is paramount.

Security Mech Wall

CRS

CRS security mech walls offer a clean, robust, and ready to go solution for effectively separating mechanical service environments from secure data hall areas. This enables maintenance operations to be carried out without compromising the integrity of data hall security.

The flexibility of the design and construction process allows for easy integration with fan wall units. Aesthetic, airflow and security requirements can all be readily customised to application requirements.


Features and benefits

- Prefabricated panels significantly reduce construction time.

- Flush construction and clean aesthetic.

- Various styles of perforation are available.

- Highly secure and robust structure.

- Customisable to suit any security requirements.

- Recessed fasteners improve aesthetics and safety.

- Slider infill panels accommodate for irregular soffit profiles.

- Adaptable panels accommodate for service penetrations.

Security Mech Wall

CRS

Our mech wall accommodates for any service penetrations through the use of our cable tray boxes, which can be installed where neccessary. The above-ceiling panels account for irregular soffit profiles with slider plates. These features work in tandem to ensure that installation is seamless.

Fixings are slightly recessed into the wall with dimples to maintain a flush profile and improve safety.
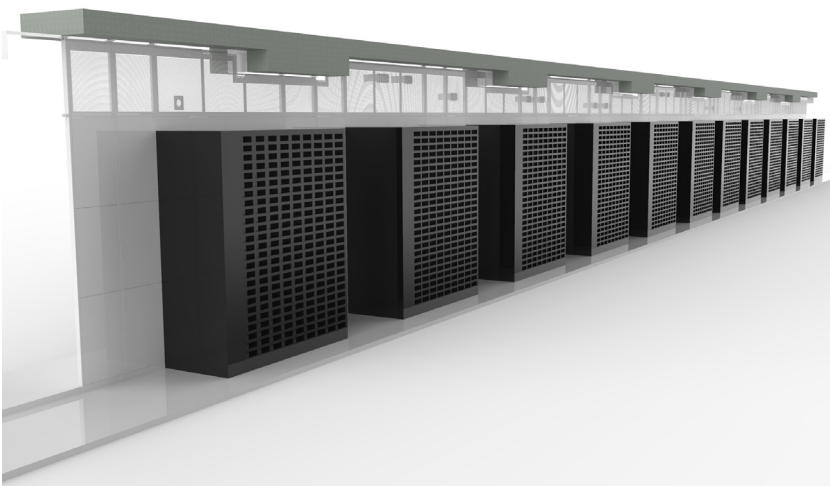
Perforated Grilles are sized to fit standard or custom Fan wall units, in order to create a complete CRAC wall.

Other custom requests can be easily accounted for in our development stage.

Data Centre Installation Capabilities & Services

CRS

With teams based throughout the APAC region, CRS can deploy highly trained and experienced personnel to site to scope, measure, design and install Data Centre Cages, expansive customized Server Rack installations, Hot and Cold Aisle Containment Solutions and Data Centre Ceiling Solutions.

Our technical design competencies stem from degree-qualified engineers who support our detailed documentation process.

Employing 3D modelling techniques, CRS provides detail designs to ensure our systems are fit-for-purpose long before they arrive on-site, guaranteeing no unnecessary installation delays.

The CRS team of in-house trained installation technicians and commissioning engineers are familiar with all aspects of our product range. Our technicians are well acquainted with data centre environments and the constraints they present.
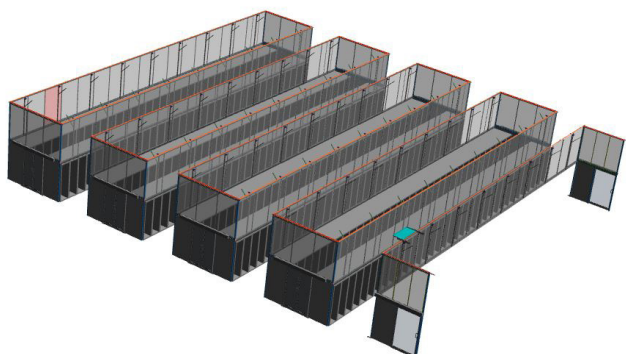
OUR SERVICE OFFERING ENCOMPASSES:

- CAD File conversion
- 3D Modelling
- Mechanical Design & Drafting
- Process Control Design
- Fabrication, testing & prototyping
- Onsite Installations & Project Management
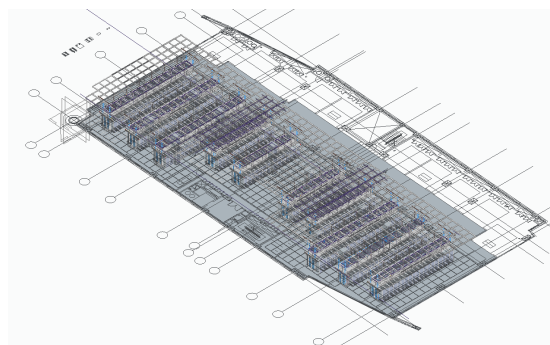
Our manufacturing and development facilities play a critical role in this process, complementing our technical and design expertise, which enables the rapid development and customisation of ICT solutions.

Data Centre Installation Capabilities & Services

The CRS approach to solution development initially involves a comprehensive scoping process which generally commences with a detailed site audit. This involves liaising with all stakeholders including data centre facility managers, discipline engineers, project management personnel and construction teams. This ensures that we gain a comprehensive understanding of the application requirements from all perspectives. Based on the outcome of the scoping exercise, all site-specific measurements are recorded as required to facilitate the design process.

Solutions are then developed from a suite of engineered product portfolios which have been rigorously tested and certified to relevant performance standards. These solutions are then scaled and customised to ensure all requirements are addressed.

CRS applies this methodology consistently across the full scope of the data centre solutions we provide.
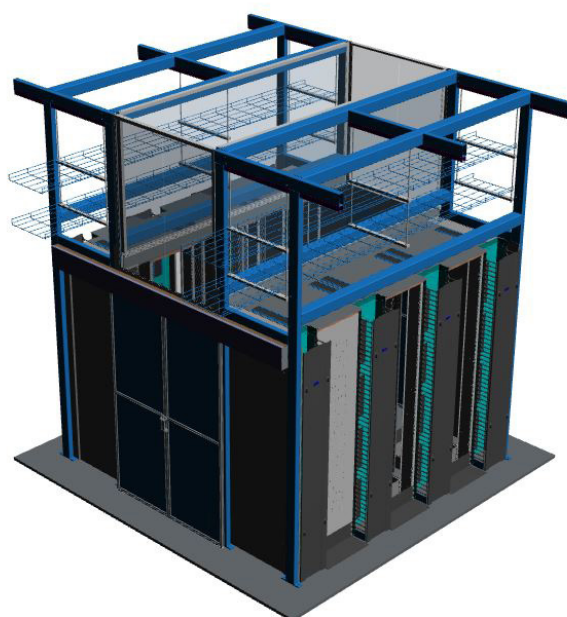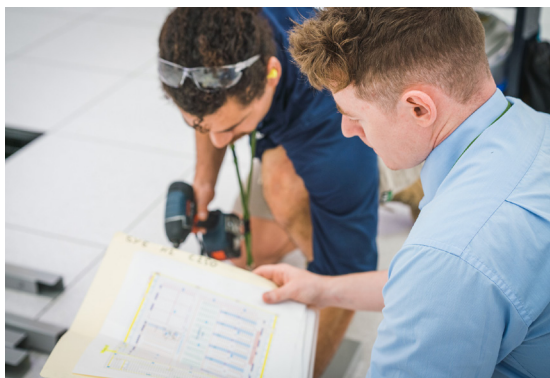
Server Racks and Cabinets

CRS

CRS manufactures a comprehensive range of server racks, cabinets & enclosures that are Australian-made to Australian and international manufacturing standards. CRS server racks and cabinets are hardy and robust whilst being contemporary in design, providing universal compatibility with servers, UPS systems, data storage, back-up devices, environmental control and cable management systems. Our range includes the following;

1. **19" Server Racks & Cabinets**
2. **Open Frame Patching Racks**
3. **Wall Cabinets**
4. **Tiered Server Cabinets**
5. **Outdoor IP Rated Cabinets**

Our cabinets vary in size and height from 6ru to 52ru, 600mm-1200mm deep and 600mm-900mm wide.

All CRS racks and cabinets can be customised with a range of compatible accessories to produce an individual solution for each project, or are custom designed to suit the requirements specific to a design brief.

We understand the space, cooling and efficiency issues common to ICT infrastructure projects, and offer passively cooled cabinets that increase airflow through servers and minimise running and computer room air-conditioning (CRAC) unit costs.
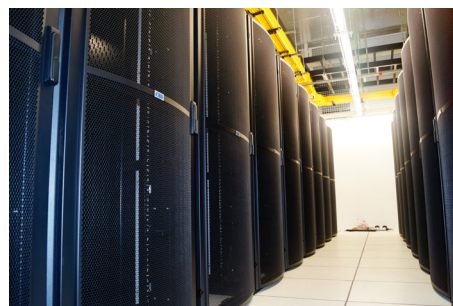

Outdoor IP Rated Enclosures

Server Racks

Communication Cabinets

Tiered Co-Lo Racks

Wall Cabinets

Open Frame Patching Racks

CRS

CRS manufactures and installs both 2 + 4 Post Open Frame Patching Racks. Used predominantly for the mounting of passive structured cabling equipment (patch panels and cable managers), both our 2 and 4 Post Open Frame Patching Racks can be supplied flat packed or pre-assembled and customised to suit any structured cabling capacity required.

2 Post

CRS 2 Post open frame patching racks provide the ideal solution for a low cost and practical means of mounting equipment in an IT environment.

Purposefully designed with integration in mind, the CRS open frame patching racks ensure ease of access from both the front and rear of the rack.

Combined with CRS cable managers, a power solution and cable access spool ways, the rack provides the ideal distribution point for all your patching requirements.

4 Post Patching Racks

CRS 4 post patching racks provide universal functionality and ease-of-use features for installation flexibility and application versatility.

Ideal for mounting deep servers and equipment, the 4 poster is an ideal hybrid network and telecommunication solution (passive and active) for any environment.
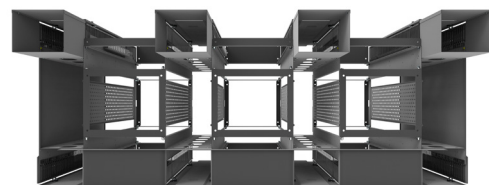
Open Frame Features

- Vendor Neutral
- Numbered vertical mounting rails
- Cable management & chimney options available in 200mm/250mm/300mm wide.
- Can be bayed & bolted together in any qty or combination.
- Easy mounting for both managed and standard PDU's
- Extra-large finger depths for high density fit outs

Visit our webpage for data sheets and more details.
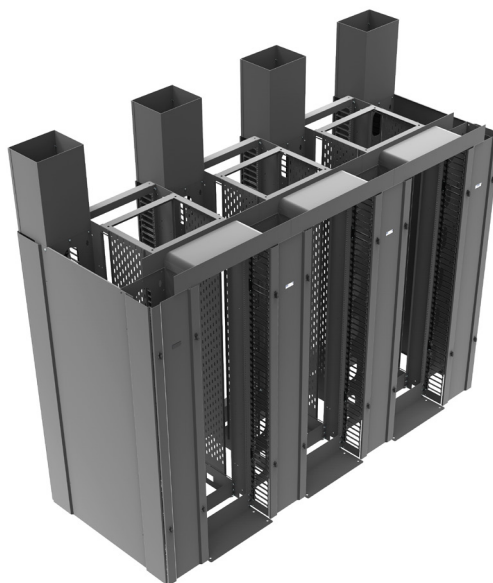
SCEC Racks

CRS

The CRS B &C Class Cabinets have been developed from years of extensive rack manufacturing and design experience to deliver a highly functional, flexible and secure equipment cabinets.

CRS security cabinets are suitable for use in high-security environments, including government and secure colocation data centre applications. They are pre-provisioned for an extensive range of retrofittable accessories including cable managers, PDUs and fan modules to improve service flexibility.

- Standard top and rear entries
- Additional top entries
- Hamper conduits for top entries
- C Class cabinets utilize manual key locks
- B Class cabinets utilize digital combination locks
- Optional bottom front and rear entries with associated hamper ducts.

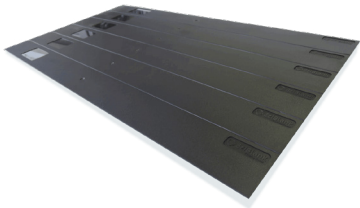**Exploded view of fully featured cabinet.**
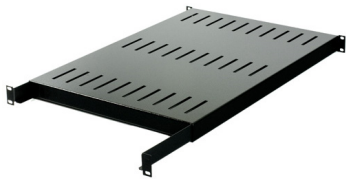
Associated Accessories

CRS

CRS manufacture a full range of vendor neutral 19" rack and cabinet accessories for your server racks, cabinets and all other 19" equipment. From fixed shelves, managing your cables or blanking out your unused RU's, we have you covered.

Bi-Locks & Access Controls

Blanking

Brushed Floor
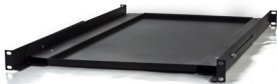
Cable Chimneys

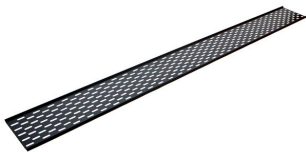Cable Trolleys

Cage Nuts & Mounting

Cantilever Shelfs

Fan Unit - Rack Mounted 3 way 2

Fixed & Sliding Shelfs

Floor Tile Lifters

Rack Mounted Cable Trays

Vertical & Horizontal Cable Managers

Vertical & Horizontal Power Distribution Units