



## About Secure I.T. Environments Ltd

Secure I.T. Environments Ltd has been established since 2003, is a UK based international provider of data centre solutions. Our history of delivering high quality, innovative solutions to the NHS, Commercial, Education, Hosting MOD and Retail sectors throughout the United Kingdom and worldwide provides a powerful combination for delivery excellence, management, and expertise.

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Our strategy has always been having a “partner” relationship with our clients as we believe this long-term relationship is the key to our growth and success. This means understanding the client’s business and the unique challenges they face and working with them to provide appropriate solutions whilst fostering and maintaining personal relationships between our companies. We constantly find achieving this ethic, our customers receive creative and practical solutions, excellent service, and real value for money.

Our company takes the view that customer aligned, right-sized data centred solutions requires the right mix of vendor products with integration expertise. Secure I.T. Environments supports the approach that no one product can deliver everything required to successfully

deliver a customer aligned, right-sized Edge, Hybrid Cloud or HPC data centre solution.

Secure I.T. Environments has taken advantage of the significant industry knowledge of our Management Team to carefully select Key Partners that continue to prove their support for our innovative customer solutions. Our Key Partners accept that their entire product range might not always align to our customer’s local project needs, but that core components when integrated by us with other infrastructures that can provide the right blend of form, function, and cost.

Secure I.T. Environments offers the following core build solutions:

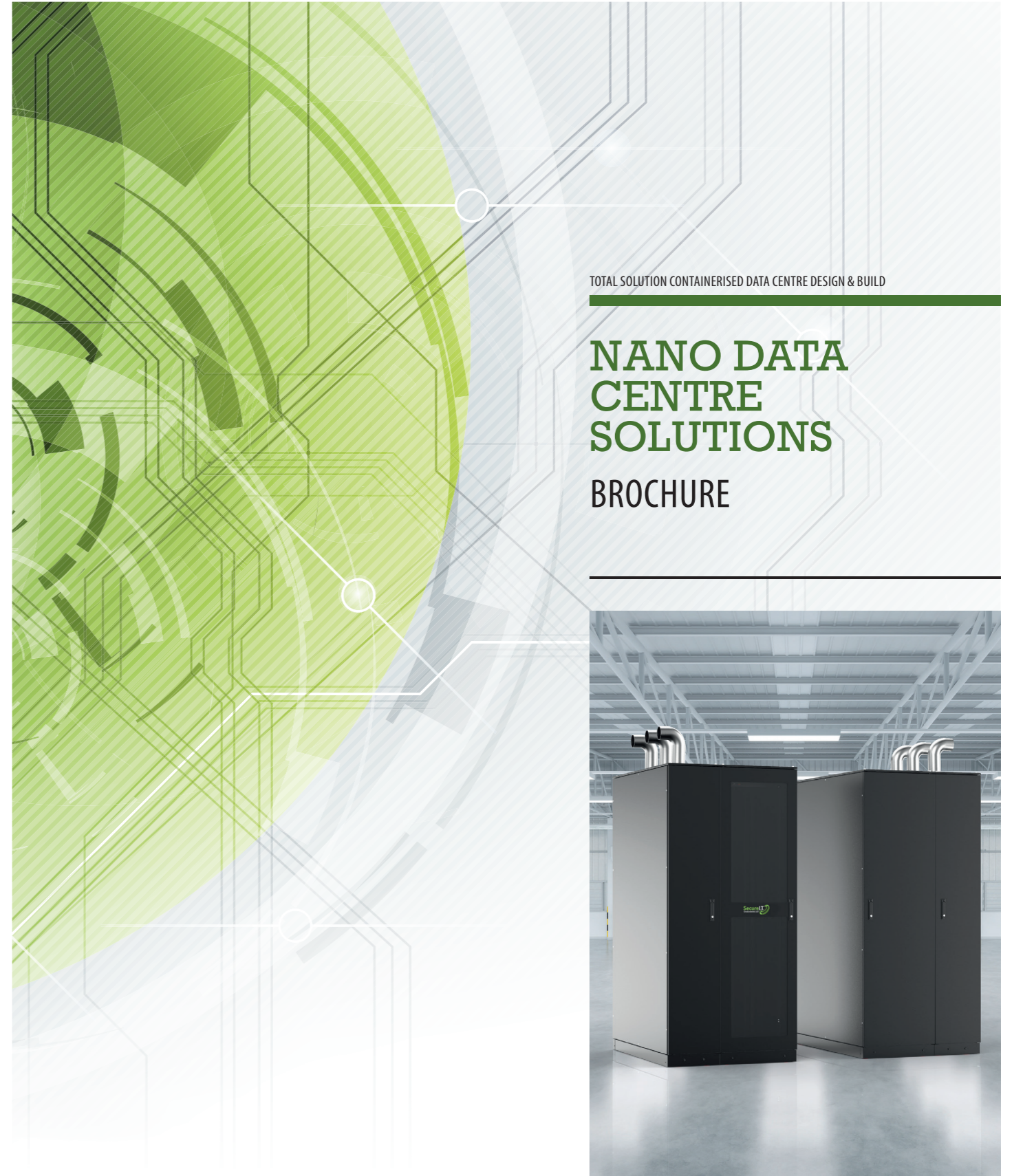
- Modular Data Centre
- Prefabricated Data Centre
- Micro Data Centre
- Nano Data Centre
- Pico Data Centre

In addition the build solutions, we also offer products and services aimed to compliment the Data Centre industry. To find out more, please visit our website by clicking the below link [www.siteltd.co.uk](http://www.siteltd.co.uk)



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TOTAL SOLUTION CONTAINERISED DATA CENTRE DESIGN & BUILD

## NANO DATA CENTRE SOLUTIONS BROCHURE



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# Secure I.T. Environments Ltd Nano DC Overview

The innovative Nano DC solution has been created to suit a diverse range of applications, indoor or out. The Nano DC is designed to operate as a standalone system avoiding the need to house compute in a dedicated room mitigating the need for costly room environments. The specially designed racks are airtight and offer room neutral cooling. The Nano DC can be sited in office areas, factory floors, outside, harsh locations and more.

The Nano DC promotes the latest in industry technology as well as best practices to offer a solution that is incredibly energy efficient. The Secure I.T. Environments design team will work with you to provide a solution tailor made to your specific requirements.

## Key Features:

- 24U - 42U heights available
- 600mm or 800mm wide
- 1,250mm deep
- Utilises standard Data Centre hardware and practices
- Optimal airflow management enables greater efficiency for the cooling system
- Airtight
- Room neutral cooling
- Rapidly Deployable
- Secure
- Up to 7kW per rack using rack mounted A/C
- Extensive Options & Accessories available
- IP66 version can be sited outside
- Cost effective - Up to 60% cost savings using Nano DC over a conventional build
- Reduction in white space requirement due to higher density racks



# A Regular Data Centre

The Secure I.T. Environments Nano Data Centre incorporates the traditional Data Centre Hardware, only in a smaller footprint.

## Specify your Nano Data Centre with:

### AIR CONDITIONING:

Cooling capacity of either 3.5kW or 7kW using DX cooling principles.

### HOT / COLD AISLE:

The Nano DC comes as standard with hot/cold aisle separation. The sealed rack and air barrier ensure airflow cannot mix therefore providing the user with an incredibly efficient system that will protect IT as well as reduce operational costs.

### UPS:

We offer a great selection of rack mounted UPS systems from well established, industry leading manufacturers. Systems are designed to suit a resilient infrastructure and offer a broad range of power.

### RACK PDU'S:

Supply your compute with Zero U rack mounted PDU's in the rear mounted vertical brackets provided in every Nano DC. PDU's can be provided to suit global power requirements, a host of plugs to suit any input socket and a diverse offering of compute receptacles to power any IT hardware you require. PDU's offer so much more than power. Outlet power-up sequencing protects against inrush current overload and allows users to define equipment boot-up order and timing, while billing-grade outlet level metering provides detailed equipment level power data. Remote outlet on/off switching for complete protection and control in critical environments, and so much more.

### RACK RAILS:

Like most conventional IT racks, the Nano DC uses 19" rack rails to accommodate standard Data Centre Hardware. To maximise efficiency of the smaller footprint, it is possible to add a further 6U to the side of the rails to vertically mount switches, EMS, Fire Panels etc. In total an additional 12U can be supported using the rails.

### FIRE DETECTION & SUPPRESSION:

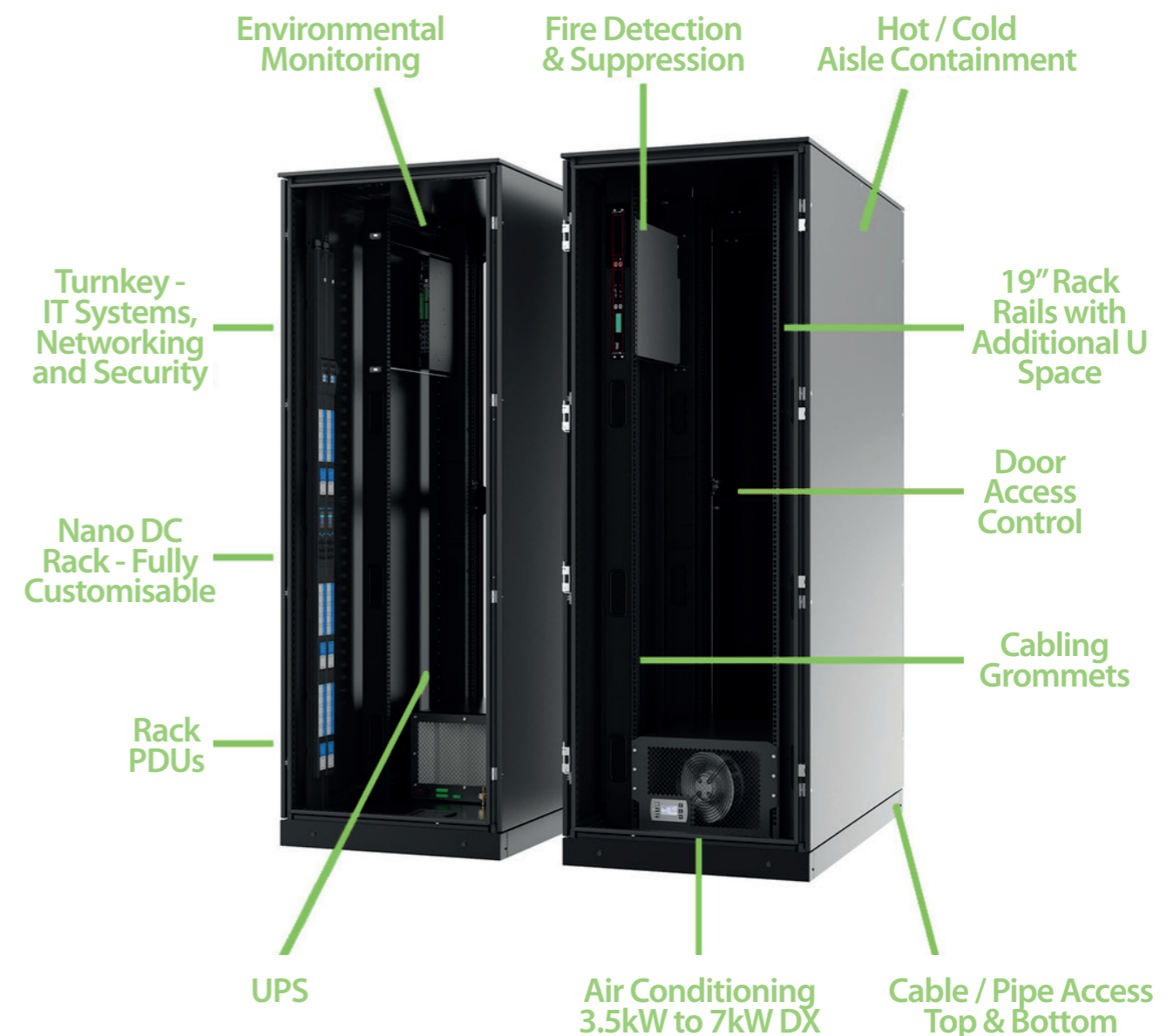
Protect your environment by optioning a fire detection and suppression system. Available from 1U high, the small device can detect fire using an intelligent smoke aspirating system and extinguish any threat by the inbuilt suppression system. A range of suppression mediums are available to mitigate a fire risk to your IT estate.

### ENVIRONMENT MONITORING & DCIM:

Our EMS and DCIM systems monitor the environment to mitigate risk and keep you informed as to what is going 24/7 wherever you are. Not only is the environment monitored, but additional hardware (UPS/Fire etc.) are also able to be monitored, providing customers with a great overview of their IT estate in real time, anywhere in the world.

### SECURITY:

Specify your Nano DC with a range of security options such as CCTV or Door Access to ensure your IT is protected at all times. Robust defences, configurable warnings and alarms and remote monitoring will ensure your Nano DC is always safeguarded from threats. Work with the Secure I.T. Team to deploy a solution that offers peace of mind.



# Air Conditioning



To compliment the Nano range, two air conditioning units are offered as standard. The rack mounted unit offers either 3.5kW or 7kW of sensible cooling in a 7U high chassis. The carefully controlled climate and powerful fans allow for well distributed airflow at the chosen temperature to help your IT estate operate as it was designed.

## Key Features:

- Rack mounted using standard 19" rails
- 7U high indoor unit
- 3.5kW - 7kW sensible cooling capacity
- DX Cooling Medium
- Utilises R410A
- Brushless DC inverter driven compressor available for the 7kW unit
- Use of EC Fans
- G3 Air Filter
- Redundancy options using two off moto condensing units per indoor unit

The Nano DC rack comes with hot and cold containment as standard to maximise airflow efficiency. The rack is sealed around the rails to ensure no air mixing between the cold and hot aisles. In addition the sealed rack allows for zero air leakage and as a result offers room neutral cooling. This allows the Nano DC to be located in an office or high traffic area.

Using DX cooling principles with R410A gas, the Nano A/C unit can work in a broad range of temperatures. By using EC fans, the Nano A/C unit offers fantastic efficiency and running costs.

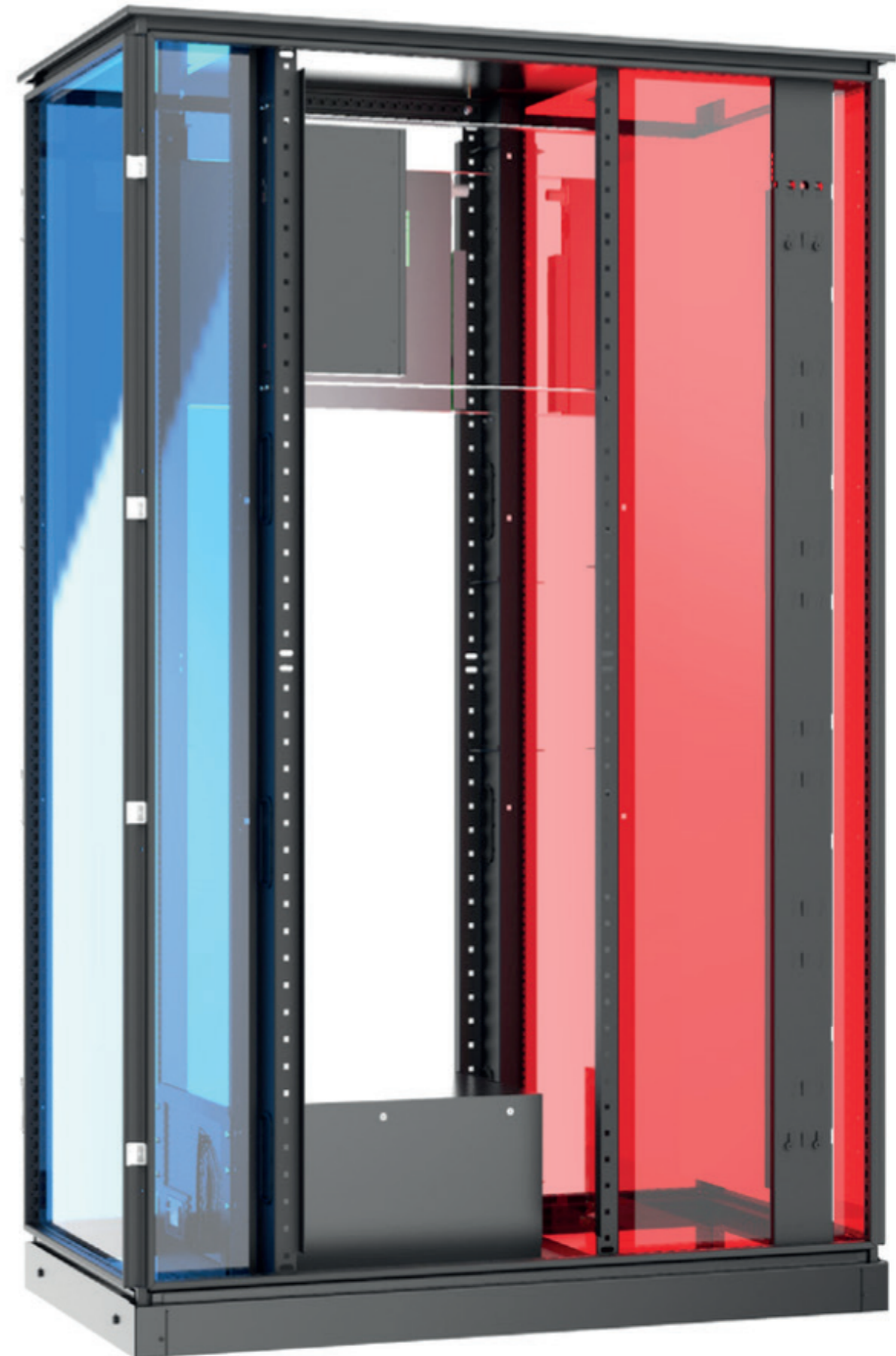
Redundancy can be provided through using multiple A/C units within rack. It is possible to use 2 off moto condensing units per one indoor unit for an extra layer of resilience.

Front  
of Rack

Rear  
of Rack

Cold air delivery plenum

Hot air return plenum



# Weatherproof

The Secure I.T. Nano Data Centre can be specified with an IP66 rated enclosure. This option enables the Nano DC to be located in much harsher environments. This allows the Nano DC to free up office or warehouse space and exploit the unused space outside of the building. Better still, the external variant can be easily sited at remote locations, and with the optional remote monitoring with excellent real time visibility over your IT estate and full support from our company, owning and operating this solution remotely is simple.

The weatherproof range continues the ethos of the standard Nano DC using standard 19" rails and conventional Data Centre hardware. Option your weatherproof solution as you would any other Data Centre.

Deployment is simple with Rapid Deployment. Plug and Play components mean once power is connected and a Data connection established, your external DC is ready to go. Quick and easy plug and play connections simplify the deployment process and are designed with Operators in mind to ensure robustness at remote environments with a weatherproof enclosure, vandal resistance and a host of external options to deploy a secure solution fast.

If security is a priority, then the Secure I.T. solution is perfect for you. Enhanced security through toughened locking ironmongery, door access, CCTV and alarms can help to mitigate threats. Security is further improved by optioning the installation of condensers within the cabinet. Using stainless steel mesh for the walls and secure doors, condensers can be installed with all pipework and cabling protected too.

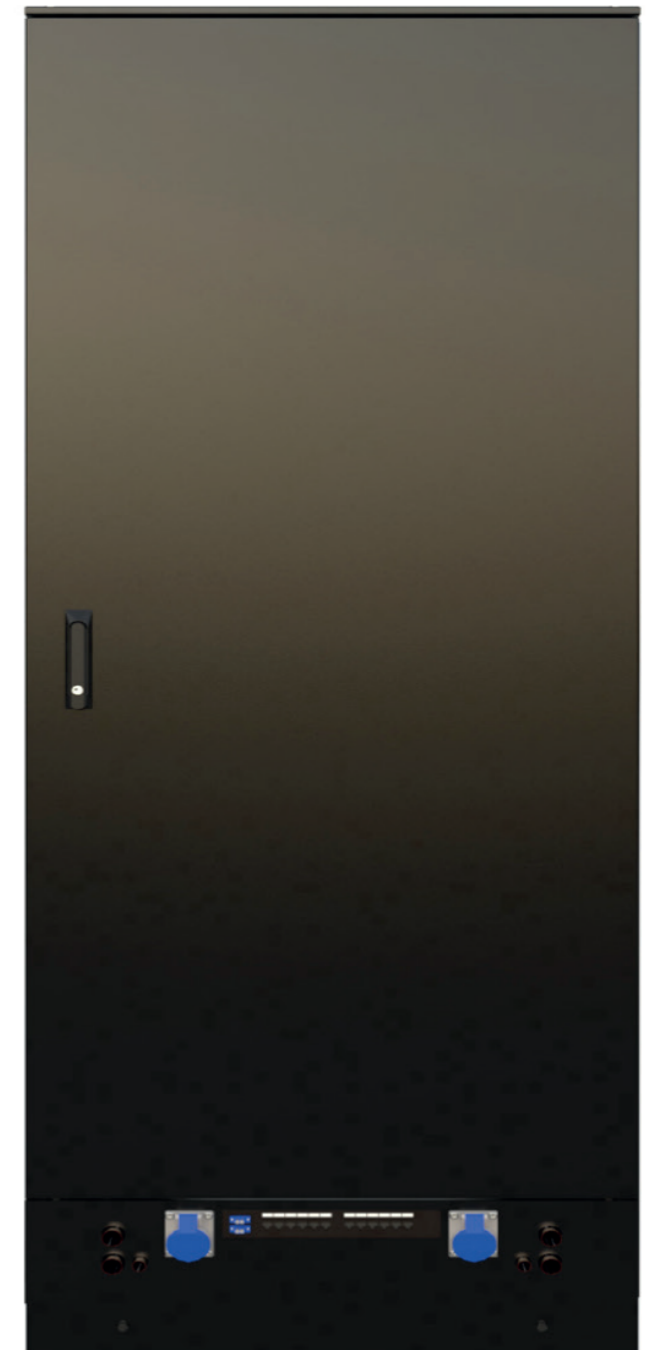
If you are considering a new Data Centre but do not have the available space internally, or you require an external solution, enquire to see how the weatherproof solution can help you fulfil your IT goals.



# Bespoke Design Services

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# Applications

The Secure I.T. Environments Ltd Nano Data Centre is designed to excel across a broad range of applications. With the ability to be sited inside or outdoors and the flexibility offered through unique customisation, the Global Nano DC can be tailored to so many applications.

**The core areas the Nano DC is suited to are:**

- Edge Computing
- Hyper Converged on-site Platforms
- Telco Solutions
- Industry 4.0 including IoT Aggregation Nodes
- Smart City IT Hubs
- Security Control and CCTV Aggregation and Storage
- Unconventional Data Centre spaces such as factories, Retail and Branch Offices
- SOHO
- Artificial Intelligence
- Super Computing
- Oil, Gas, Exploration and Mining

