EDGE-3
Soundproof Air-Cooled Micro Data Center
Why EDGE?

In our digital age more devices are connected to the internet utilising cloud based storage. The number of devices and users continue to increase which puts a strain on bandwidth causing latency.

This can be done in an environment other than a traditional data room thereby saving real estate and comms/data room build expense. USystems offer a broad range of self contained intelligent modular systems called EDGE to house localised computing, which can be deployed directly into factories, warehouses, offices, M2M, multiple users, businesses etc., either as a standalone cabinet or bayed together in a dedicated room.

The reduction in user bandwidth availability and the increase in latency could have dire consequences depending upon the application being used.

This latency and decrease in bandwidth can be overcome by introducing on-premise edge computing. This allows the user to access immediate computer power locally whilst using the cloud simply to store information.
Arguably the best all round performing air-cooled soundproof MDC in the world - the EDGE-3 replaces the need for a dedicated server room and only requires less than 1m² of valuable office/floor space, allowing localised on premise computing in populated or more sensitive locations - especially where there might be a concern of server noise being a distraction or breaching EEC working noise guidelines.

Capable of housing full depth high heat load servers the EDGE-3 is easy to deploy and simple to set-up.

Most importantly, the EDGE-3 incorporates the latest IoT technology for real time environmental and security monitoring.

Peace of mind is provided by an on board environmental and security monitoring system, complete with up to 2 wirelessly integrated cameras. Real time alarms and alerts which can be viewed via a WebUI, so you know what’s going on and see who’s coming and going 24/7.

Advanced configurations are available for enhanced levels of security and redundancy.

Alarms and alerts in real time will notify authorised personnel via email alarms relating to any issues with the cabinet.

The LCD touch display on the cabinet doors will change colour if the cabinet status changes, alerts (amber) or alarm (red). It will remain blue when working correctly. Touching the display will show environmental data from each temperature/humidity sensors or in the event of an alarm what that alarm specifically is.

Typical application spaces:
Staffed offices, IT/Comms rooms, studios, libraries, laboratories, receptions, surgeries, hospital wards, showrooms, classrooms and home offices

For safe running we recommend siting in a ventilated space, typically at 70°F/21°C and below but not warmer than 80.5°F/27°C
A sound investment!

Deploying active IT equipment into the middle of a working environment can be off putting for visitors and detrimental to working conditions in terms of the constant evasive noise and excessive heat generated from the active equipment.

The EDGE 3 effortlessly removes these issues and stylishly blends into the working environment. The 42U cabinet effectively removes up to 28.5dBA (99.9%) of IT noise, which is tech speak for saying that it will reduce server noise down to a whisper.

Features and benefits

- **EC fan technology**
  - Energy saving and hot swappable

- **Swing handle and two point locking**
  - Providing high security—electronic upgrade is also available

- **Heavy duty castors, plinth kit and levelling feet**
  - For safe rapid deployment

- **Door dust filters**
  - Providing for dust free operational environment

- **LCD display**
  - Displaying alarm state and all major monitoring points

- **IP54 Upgrade option**
  - IP44 as standard for protection from dust ingress

- **28.5dBa IT noise reduction**

- **12kW heat load dissipation**
Features and benefits

EDGE Management System EMS
Providing real time environmental monitoring

Cable tray on both sides
Ensure best cabling practice

Wireless security camera
A visual record of personnel entering the cabinet

Anti air recirculation kit
Save energy and maintain hardware performance

Foam cable entry system
Speedy installation without compromise to performance

Cable management fingers
Ideal for tidy cabling and patching,

Plinth panels
For that finishing touch

Cable entry
Generous access with three entries at the top and three at the bottom of the cabinet
Standard specification

- EDGE Management System EMS
- Wireless security camera
- Earth bonding kit
- Fire retardant soundproofed server cabinet frame
- Fully adjustable front and rear mounting angles.
- Easily removable fire retardant soundproofed side panels
- Wardrobe style front and rear doors
- Energy efficient EC fans
- Passive doors come complete with removable dust filters
- Fire retardant soundproof cable entry system
- Six cable entry points accessible via removable gland plates
- Foam cable entry block
- Fixed plinth and fitted 750kg load bearing castors
- Levelling feet and dynamic load brackets
- Two 300mm wide cable trays
- Two pairs of depth support rails

Materials and finish

Frame
1.5mm CR4 steel

EDGE 3 passive and active doors
1.0mm, 1.2 & 2.0mm CR4 steel

Side panels
1.2mm CR4 steel

Top cover
1.5mm CR4 steel

Mounting angles
2.0mm CR4 steel

Fans
Backward curve EC fan

Soundproof foam
Fire retardant

Intelligence
EDGE Management System

Semi gloss powder coat

*Dynamic Load Rating is the total rolling mass of the rack and includes the rack frame, cladding and any fitted equipment and accessories and is subject to the load being evenly distributed at 20U height and below. Dynamic load relates to the movement of a rack within the same data centre on a smooth floor clear of any obstacles. Not suitable for transportation on a vehicle when loaded to this weight.

Compliance statement: Manufactured to IEC 602973 and EIA STD 310 for panels and racks housing electronic equipment
# Dimensions and performance

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<tr>
<th></th>
<th>12U</th>
<th>24U</th>
<th>42U</th>
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<tbody>
<tr>
<td><strong>Cabinet useable height</strong></td>
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<tr>
<td>Overall height including plinth and levelling feet</td>
<td>28.35”/720mm</td>
<td>44.43”/1154mm</td>
<td>80.9”/2054mm</td>
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<tr>
<td><strong>Width</strong></td>
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<td></td>
<td>30.7”/780mm</td>
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<td><strong>External depth: Standard / with extension</strong></td>
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<td></td>
<td>43.31”/1100mm</td>
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<td><strong>Dynamic load inclusive of cabinet weight</strong></td>
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<tr>
<td></td>
<td>1653lbs/750kg</td>
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<td><strong>Static load inclusive of cabinet weight</strong></td>
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<tr>
<td></td>
<td>3307lbs/1500kg</td>
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<td><strong>Air cooling performance (without dust filter)</strong></td>
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<td>7.2kW</td>
<td>10.5kW</td>
<td>12kW</td>
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<tr>
<td><strong>Air cooling performance (Inclusive of fitted dust filter)</strong></td>
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<tr>
<td></td>
<td>6.2kW</td>
<td>9.5kW</td>
<td>11kW</td>
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<td><strong>Index of protection rating</strong></td>
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<td></td>
<td>44</td>
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<td><strong>Noise reduction of IT noise—all models</strong></td>
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<td></td>
<td>28.5dBA (99%)</td>
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*This figure will be affected if the filter is not regularly maintained

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![Standard footprint internal dimensions](image1.png)

![Internal dimensions with 300mm extension](image2.png)
**EDGE Air ducting kit option**

Best practice energy saving option

The EDGE air ducting kit offers massive cost savings by reducing the need for ambient air conditioning and heating.

It enables hot exhaust air to be directed outside the room or building, saves on energy and keeps the room cool and protect the ambient temperature.

- Save money, energy and power consumption on existing room air conditioning
- Divert and recycle waste hot air providing free heating to other rooms
- Helps prevent hardware and software failures
- Helps prevent any unnecessary downtime
- Access to rear of cabinet and door opening is not affected when the ducting kit is utilised
- Retrofittable to the 24U and 42U edge-3 cabinet
- Can be directed to exhaust through wall, window or ceiling plenum
Extra depth server extension kit

To accommodate greater depth IT equipment such as some of the latest high power servers

The extension kit enables these to be housed in the EDGE-3 by giving an additional 300mm depth to accommodate this type of specialist, deeper equipment.

The extension kit is fully retrofittable and will not adversely affect the performance of the cabinet.

Side venting kit

Side venting kit for active IT equipment which cools from side to side such as Cisco switch gear etc.
EDGE Management System ‘EMS’

Providing complete peace of mind

A standard feature of the EDGE-3 is the inclusion of the EDGE Management System EMS which is essentially an environmental monitoring solution with a number of additional features.

These include the ability to oversee and control all cooling outputs, the wireless cameras, and up to ten sensors.

Third party devices contained within the cabinet, such as a UPS or intelligent PDU’s can be monitored via the EDGE WebUi.

Because you need to know

Whilst it is the EDGE Management System which takes care of the energy efficient cooling, it is the EMS which brings together the whole solution.

Alarms and alerts in real time will notify you of any issues with your cabinet. Alarm notifications can be sent up to ten email addresses. The LED screen on the cabinet will also show an alarm status.

Safe and secure

Up to two wireless internal cameras communicate directly to the EMS. Multiple images are taken when a door is opened, these images are stored local on the device. Authorised EMS users can then view or download them.
**EDGE Pack options**

Pre-configured and factory fitted for your convenience

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**Intelligent power**

A full suite of fully specified intelligent power strips in a variety of entry levels

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**Advance smoke & fire protection**

The FP Hybrid aspirating fire and smoke detection solution featuring the unique FP fire prevention system.

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**Security**

A full electronic access and security system, key pad, bio metric etc.

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**Uninterruptible power supplies**

Protection for hardware from unexpected power disruption
EDGE-3

Rapid deployment
Air-cooled sound proofed Micro Data Centre

Systems
Putting our planet first

EMEA:
USystems Limited.
Systems House, 235 Ampthill Road, BEDFORD, MK42 9QG, United Kingdom
Tel: +44 (0) 1234 761 720 Email: sales@usystems.co.uk

NORTH AMERICA:
USystems Inc.
10 Glenlake Parkway, Suite 130, ATLANTA Georgia 30328 USA
Tel: +001 214 307 6033 Email: sales@usystems.com

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Quality, recycling, compliance and manufacturing statement
USystems is registered as meeting the quality manufacturing requirements of EN ISO 9001:2015, ISO 14001 Our products comply with CE, and RoHS standards and are UL listed. We recycle well over 90 per cent of our waste.