



**OSILAN**<sup>®</sup>

Manufacturer of Data  
Centre Solutions



**DATA CENTRE  
SOLUTIONS**



# DATA CENTRE

## AISLE CONTAINMENT SYSTEM

---

**Osilan Aisle Containment System** is a solution that is designed to control the airflow in data centres. It is a physical barrier that separates the hot and cold air streams in the data centre aisle. The system is made up of a series of panels that are installed above and below the racks in the aisle. The panels are designed to create a barrier that prevents the hot air from mixing with the cold air, which helps to improve the efficiency of the cooling system

---

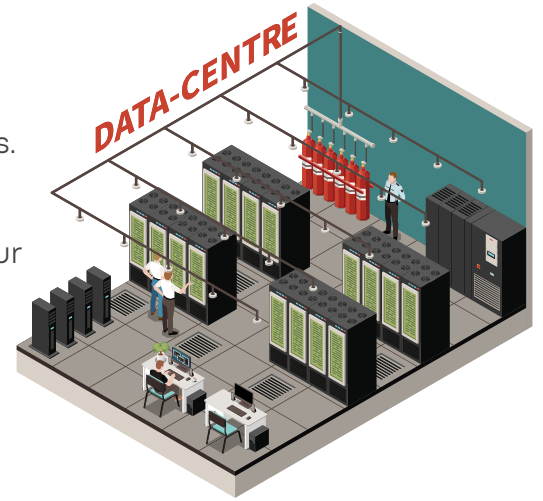
## AISLE CONTAINMENT SYSTEM USE CASES

---

**Osilan Aisle Containment System** is an effective way to reduce energy consumption in data centres. By separating the hot and cold air streams, the system helps to reduce the amount of energy that is required to cool the data center. This can result in significant cost savings for data centre operators. Additionally, the system can help to improve the reliability of the cooling system by ensuring that the cold air is delivered directly to the equipment that needs it.

# AISLE CONTAINMENT SYSTEM CONCLUSION

Overall, Osilan Aisle Containment System is an important component of any modern data center. It helps to improve the efficiency and reliability of the cooling system, while also reducing energy consumption and costs. If you are looking to upgrade your data centre, consider installing an Aisle Containment System to help improve your operations.



**The Fibre Raceway**, developed by Osilan, is a cable routing solution specifically designed for safeguarding and organizing fiber optic and high-performance copper cabling in critical infrastructure environments such as telecom rooms and datacentres.

Constructed from rigid and durable PVC material, the Fibre Raceway offers exceptional protection against impact. Additionally, it possesses flame-retardant properties and meets the UL94V-0 fire rating standard.

Installation and maintenance of the system are effortless due to its fittings, eliminating the need for tools. The channels can be easily snapped together to create customized lengths and configurations.

To enhance its functionality, the Fibre Raceway is accompanied by a range of accessories, including covers, couplers, and mounting brackets.

---

## FIBRE RACEWAY USE CASES

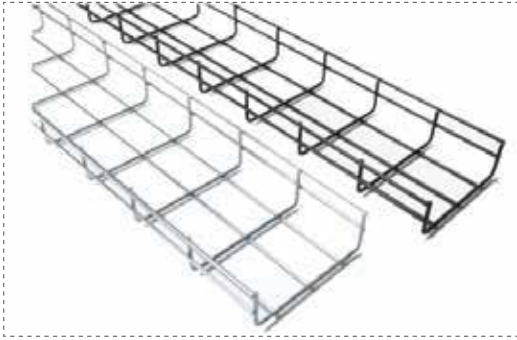
**Fibre Raceway Solutions** are utilized in various scenarios. These solutions are designed to efficiently manage and organize fibre optic cables. They are commonly used in data centres, telecommunications networks, and other industries that require high-speed and reliable internet connections. Fibre Raceway Solutions help to prevent cable damage, reduce signal loss, and improve overall network performance. They are also used to streamline cable installation and maintenance processes, making it easier for technicians to access and manage cables. Overall, Fibre Raceway Solutions play a crucial role in ensuring the smooth operation of fiber optic networks & Datacenters Connectivity.



# FIBRE RACEWAY SOLUTIONS

# WIRE MESH SOLUTIONS

**Osilan Wire Mesh** Solutions is a comprehensive cable management system that efficiently guides and safeguards copper data cables, fibre optic cables, and power cables in data centres, connected buildings, and industrial automation applications.



The system comprises interconnected wire mesh panels, which can be assembled in size and arrangement to cater to specific requirements. Additionally, the system offers flexibility for easy reconfiguration to adapt to evolving environmental demands.



# WIRE MESH SOLUTION USE CASES INCLUDE

OSILAN



The installation time is minimized with the system's fast and effortless setup, resulting in time and cost savings. Efficient cable management is achieved through the wire mesh panels, ensuring secure and organized cable routing. This not only enhances cable performance but also prevents any unintended damage.

User safety is prioritized with the system's adherence to safety standards, effectively safeguarding users against electrical hazards.

Wire Mesh is highly suitable for settings such as data centres, industrial automation environments, and connected buildings where cable organization is of utmost importance.



# PROPOSAL FOR SENSING & CONTROLLING OF SERVER ROOM TEMPERATURE AND HUMIDITY

## 1 EXECUTIVE SUMMARY

In this proposal, we present a system capable of measuring the temperature and humidity in a certain room and sending the data to a server or the cloud. The system can also generate an alarm in case the temperature and humidity reach reconfigurable values.

The system provided by osilan can serve multiple purposes such as in hotels, restaurants or in critical places where the temperature and humidity must be in a certain range such as in server rooms or medicines storage rooms. If the temperature goes beyond the prescribed range, an alarm will be generated and a warning will be sent to the responsible person to avoid any critical issue.



**Figure 1:** Server room with temperature & humidity monitoring system





## 2 SYSTEM COMPONENTS

The following block diagram shows the different components of the system.

### 2.1 System Server

The server software will be installed on a server to handle all the sensors and devices connected to the system. The must be connected to the local network at least. For remote access, the server should be connected to the internet with static IP.

### 2.2 Temperature and Humidity Sensor

The system is capable of measuring temperature and humidity using a temperature and humidity sensor, which can measure the temperature of the room in Celsius and the humidity in the room in percentage.

The sensor is connected to the device and is fixed to the wall using a screw. Figure 2 shows the sensor connected to osilan's Sensor Node

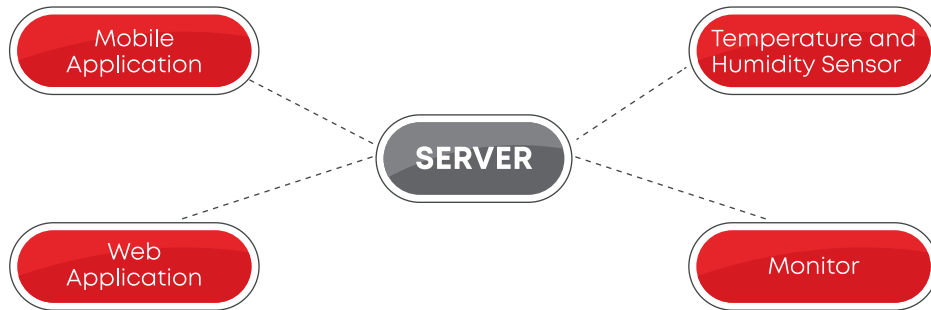


Figure 2: The Monitoring System Block Diagram

### 2.3 Wireless Water-Leak Sensor

Wireless Water-Leak Sensor is ideal for proactive real-time water leak detection. Engineered with an IP67 waterproof probe and a 150 m (492 ft) broadcast range, it delivers reliable and cost-effective monitoring in critical environments. Detect and mitigate water-related risks promptly, safeguarding your assets and maintaining operational continuity

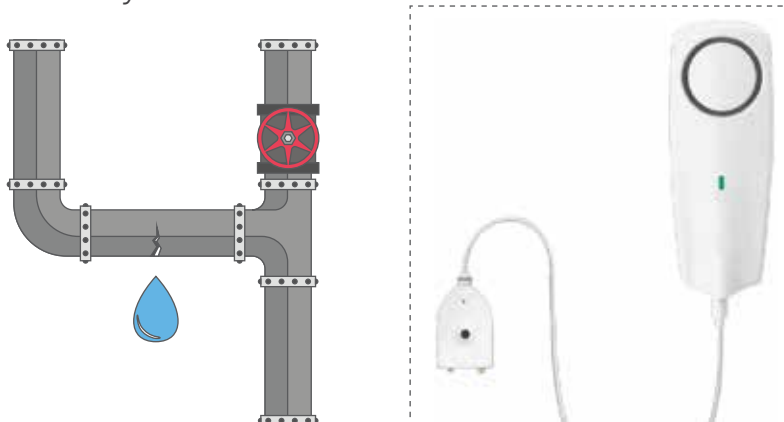


Figure 3: Water Leakage sensor

## 2.4 Smoke detector sensors

A smoke detector is an electronic fire-protection device that automatically senses the presence of smoke, as a key indication of fire, and sounds a warning to building occupants.



**Figure 4: smoke sensor**

---

## 2.5 Web application

The server has an application running on it. The user can control the system using the application. The application can also be used to monitor usage and check the history of the different sensors in the system. It can also be used to set the alarm levels for the sensors.

---

## 2.6 Mobile application

The solution provided by osilan offers a mobile application to monitor the temperature and humidity in the server room and the electricity room and follow the current temperature degree and the humidity.

osilan provides an Android-OS application. Figure 3 shows a sample of the mobile application that will be adapted to the system. For the application to work remotely, the server should be connected to the internet with static IP.

### 3 SYSTEM SPECIFICATIONS

The following are the specifications of the system we offer by osilan

- Measuring range: humidity 0-100% RH / temperature 0°C – 70°C
- Accuracy: humidity  $\pm 2\%$  / temperature  $\pm 0.5^\circ\text{C}$
- Sensing period  $< \sim 5\text{s}$
- WiFi network access using an internal built-in WiFi module
- Operating voltage: 9-15V (Adaptor DC voltage)
- Battery supply (Backup): 3.7 Li-pol backup battery in case the main power cut-off
- Alarm generation using a siren based on the configuration of the system



Figure 5: The sensor Node with temperature and humidity sensor connected



Figure 6: Sample Mobile application



Figure 7: Sample Mobile application cycle



# THANK YOU

WE LOOK FORWARD TO WORKING TOGETHER



+44 (0)20 8133 4420  [www.osilan.co.uk](http://www.osilan.co.uk)  [sales@osilan.co.uk](mailto:sales@osilan.co.uk)

 268 Bath Road, Slough, Berkshire. SL1 4DX United Kingdom

