12 King Street, Leeds

Equans SMARTR technology delivers fully integrated smart building – connecting people, places and things.

Background

Equans has been instrumental in the digital transition of the newly refurbished building at 12 King Street in Leeds – creating an industry-leading example of a 'smart' building. The result is a building with the largest cross-functional wireless infrastructure in Europe.

12 King Street is a 54,000sqft development, set over seven floors. Owners Fiera Real Estate UK and Opus North wanted to re-design the building to prioritise well-being and sustainability. To achieve this, the building was renovated from top to bottom and completely refurbished, with the Equans SMARTR Multisense technology installed throughout.

Equans was involved from the outset to ensure that smart technology was included as an integral part of the refurbishment design.

Collaboration across all stakeholders resulted in a truly smart building, in which disparate systems and assets were fully integrated, enabling data and services to be accessed by users via smart devices.

Fully integrated building systems

The network of SMARTR Multisense devices within the building enables cross-functional management of different building systems. SMARTR uses standard integration applications – such as API, SDK, MQTT – to normalise all of the different open-source protocols used by assets and systems from different manufacturers. This enables all the disparate systems and assets within the building – from lighting and heating to lift controls and security access – to communicate with each other. The fully integrated systems help to connect people, places and things, providing valuable data, controls and a seamless experience for building users, owners and facilities managers.

The smart infrastructure collects data from both wired and wireless networks, enabling it to control all connected services. For example, the Smart EnOcean protocol enables wireless and battery-less technology to access data from smart sensors, such as air quality, PIR, temperature and humidity sensors. The network then distributes this data back out to the relevant systems to efficiently manage the lighting, heating and air conditioning. The system also uses Bluetooth to share data with users on their own devices.

Smart services for tenants and managers

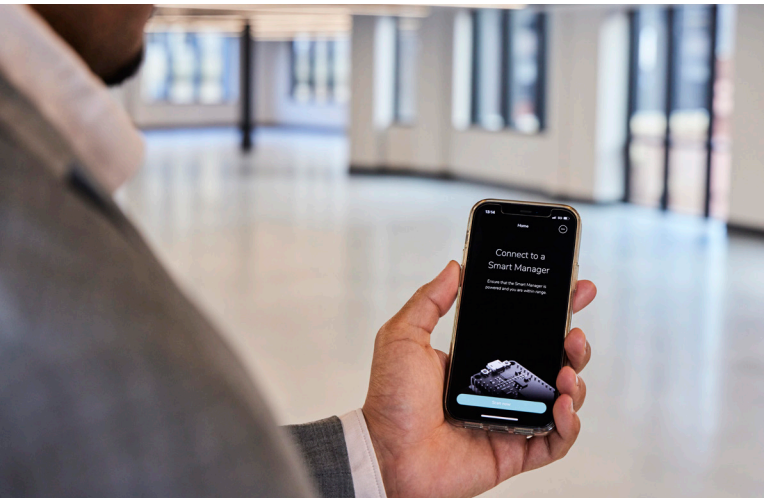
Tenants can choose from a wide selection of soft services, such as room booking, visitor management, smart parking, building access and wayfinding. All of the modules are Software as a Service (SaaS) applications, which tenants can buy outright or rent. Users are provided with full dashboard functionality for monitoring and analysing data and alerts.

For facilities managers, the integrated system provides powerful operational tools. It can run automated service routines that use granular sensing data to create analytical reports on each connected asset. The system can access the centralised drawings application and identify a fault, provide detailed asset information, and guide an engineer to the exact location within the building.

Prioritising well-being and sustainability

The smart building system was designed with well-being and sustainability at its heart. The system continually gathers and analyses a wide range of health-related environmental information, such as temperature, humidity and air quality. It identifies when any of these fall outside acceptable ranges, and alerts building managers to take action. In this way, the system helps to maintain a healthy work environment, and ensures prompt action to rectify any issues.

In parallel, the system provides facilities managers with real-time information on factors such as occupancy in workspaces and footfall in corridors, to underpin efficient management. This prioritisation of well-being is an important factor for tenants, helping them to attract and retain the talented people they need.



Optimum efficiency for life

The newly renovated building has a BREEAM Excellent rating and will deliver a 14% reduction in carbon emissions, 29% less energy consumption for heating and cooling, and 42% less water consumption. As a smart building, sensors throughout the building will ensure its performance remains optimised.

"Choosing SMARTR and deploying these smart technologies was, for us, the obvious way forward. Now, we are future-proofed and have the flexibility to keep on modernising. This is critical to supporting the ESG agenda, and something we can clearly demonstrate to our investment stakeholders through the building's performance reporting. I am proud of our commitment to delivering a truly future-proofed building that is energy-efficient and provides the ultimate end-user experience"

Ryan Unsworth, Director at Opus North

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