# Realising the future of Smart Cities

mayflower
SMART CONTROL

# "half a million assets installed"



"As well as the reduction in energy consumption, which has obviously cut our energy bills and our carbon footprint, there has also been a reduction in light pollution and a big saving in carbon tax – around £200,000 per year."

**Cllr Rob Humby, Hampshire County Council**

With almost half a million assets installed across the globe, at Mayflower Smart Control we collaborate and partner with world-leading technology partners such as Microsoft Azure and Amazon Web Services to help local authorities realise their Smart City potential.

We tackle modern day city challenges such as parking space availability, optimal winter gritting routes, air pollution levels and flood risks by integrating Smart City applications and third-party sensors with our proven Mayflower Lighting Network.

Our desire to help you reach your true Smart City potential doesn't stop there; continual development of a universal Smart City and Connected Environment Platform could provide integration with technology such as Assisted Living, Smart Buildings, Connected Homes and Smart Cities.

## KEY BENEFITS OF MAYFLOWER CMS

### Citizen safety
A key priority of any local authority is the safety of its residents, workers and visitors. Asset managers have the flexibility to tailor lighting levels to their own requirements as well as offer support to the emergency services as and when required.

### Dynamic reporting
The ability to monitor outputs, and subsequently system performance, minimises the potential of failures in the system, as faults can be reported to the operational support team almost instantaneously. Mayflower CMS is one of the most effective ways to determine actual energy expenditure and associated consumption costs.

### Reduction of energy usage
Lower energy outputs present a significant reduction in $CO_2$ emissions, contributing to your Carbon Reduction Commitment strategy. Reduced site visits also minimise your Carbon Footprint and Carbon Tax bill.

### Financial savings
Implementing Mayflower's Central Management System reduces the total operating cost of street lighting through the reduction of energy consumption and financial expenditure. Automatic fault reporting and remote monitoring minimise the requirement for site visits and night scouting.

### Cutting edge technology
Our technical team actively works with technology innovators and researchers to develop and enhance the Mayflower product portfolio. This allows customers to realise the full benefits of our product offering.

### Reputation
Mayflower Smart Control is a brand within SSE Enterprise (Digital Services) - a wholly owned subsidiary of the SSE Group. SSE plc is a FTSE Top 50 company recognised globally for excellence in both energy supply and solutions.

### Experience
With extensive experience of managing CMS projects across the UK, Ireland and Australia, Mayflower operates the UK's largest single CMS installation totalling over 156,000 units.

# MAYFLOWER CENTRAL MANAGEMENT SYSTEM

## HOW IT WORKS

### External Node

Our most popular Mayflower product, the External Node is connected to the lantern via a socket, which can be either ANSI C.136.41 compliant or Mayflower's patented S6000 socket. Commands are transmitted from the Sub Master via the Zigbee mesh network allowing the Node to control light output by dimming, trimming or switching operations.

Mayflower - External Dali Node
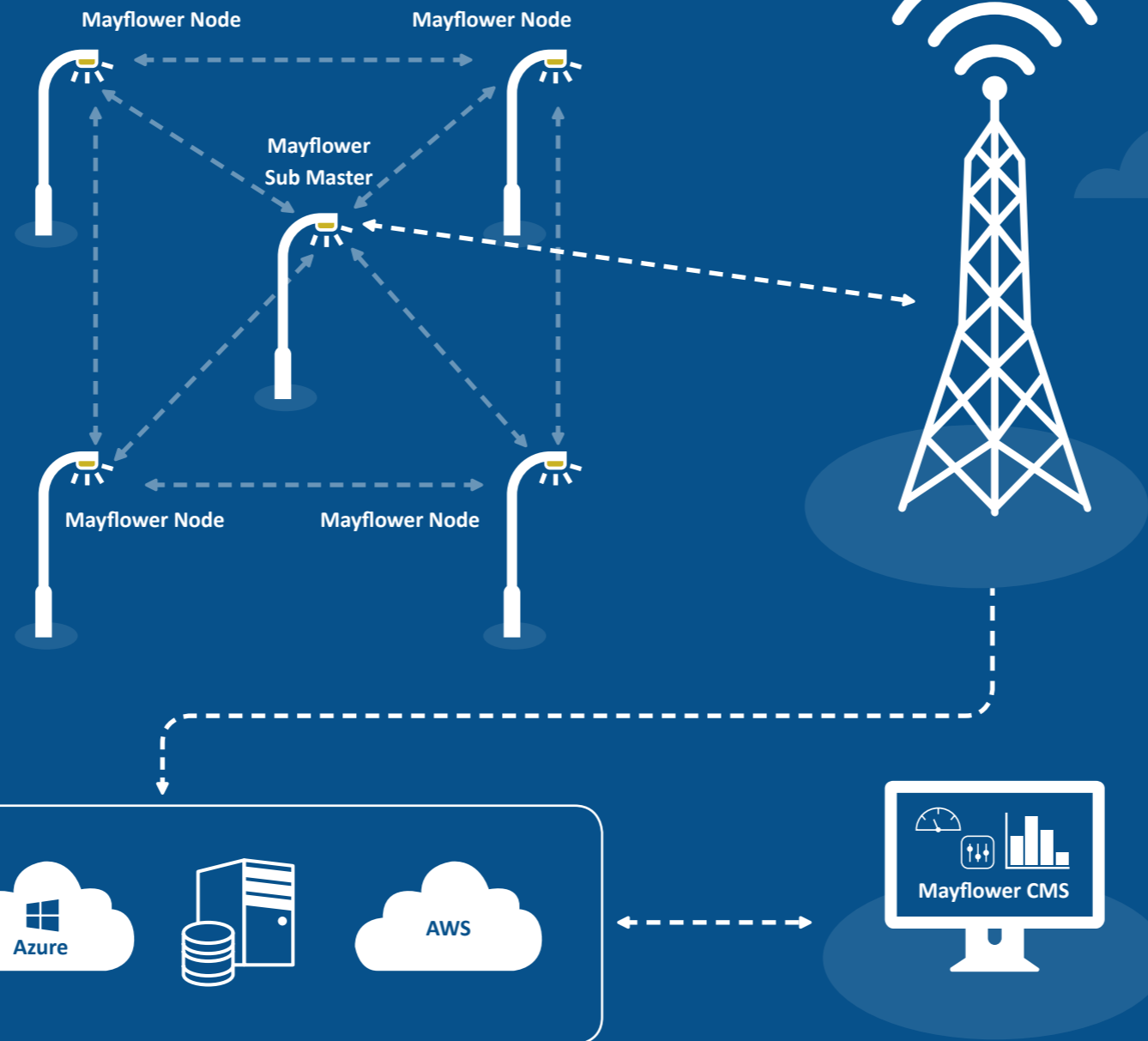
(ANSI or S6000 versions available)

### Sub Master

Responsible for the transfer of information between Nodes and the Back Office system, a single Mayflower Sub Master can control up to 500 Nodes, using the same connection method as the External Node - either ANSI C.136.42 compliant or Mayflower's patented S6000 socket. Firmware for the Sub Master, External Node and Internal Node have the capability to be upgraded Over The Air (OTA).
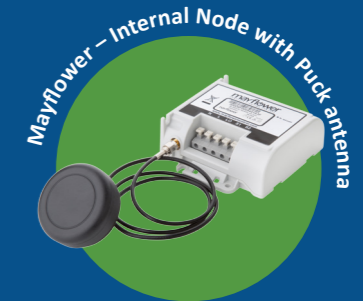
Mayflower - Sub Master MKIII

(ANSI or S6000 versions available)

### Internal Node

For many lighting designers, aesthetics are a key element of architectural and heritage installations, signs and bollards. Mayflower's Internal Node is installed inside the luminaire or lighting column with a choice of puck or stub antenna positioned externally, allowing for Sub Master communications with minimal visual impact.

Mayflower – Internal Node with Puck antenna

### S6000 Socket

Mayflower's patented S6000 socket utilises a unique 6-pin connection method, with an additional anti-tamper locking mechanism, which aids security design. The S6000 socket can connect to both Mayflower CMS S6000 hardware or standard photocells.

Mayflower - S6000 Socket

Mayflower Node

Mayflower Node

Mayflower Sub Master

Mayflower Node

Mayflower Node

Azure

AWS

Mayflower CMS

**Back Office system**

Mayflower's Back Office system is essentially the control portal of the entire lighting network, allowing asset managers to monitor system performance with near real-time communications.

**Mayflower's Back Office system has multiple functions, including:**

- API available for integration with third-party platforms
- Asset register
- Cloud-based solution
- Configurable dashboards
- Dynamic DALI command interface
- Elexon approved
- Energy reporting
- Fault monitoring
- Firmware OTA management
- Geo-location asset mapping
- Integration with third-party asset management systems
- Lighting policies
- Override switching schedules
- Smart City dynamic switching
- Two-Factor (2FA) access control

"Investment in a CMS is paying dividends above the savings from the LED/CMS investment. We continue to explore many additional applications and opportunities with our CMS partner Mayflower Smart Control, to enable a Smart environment for the residents of Slough."

**Sing-Wai Yu, Slough Borough Council**
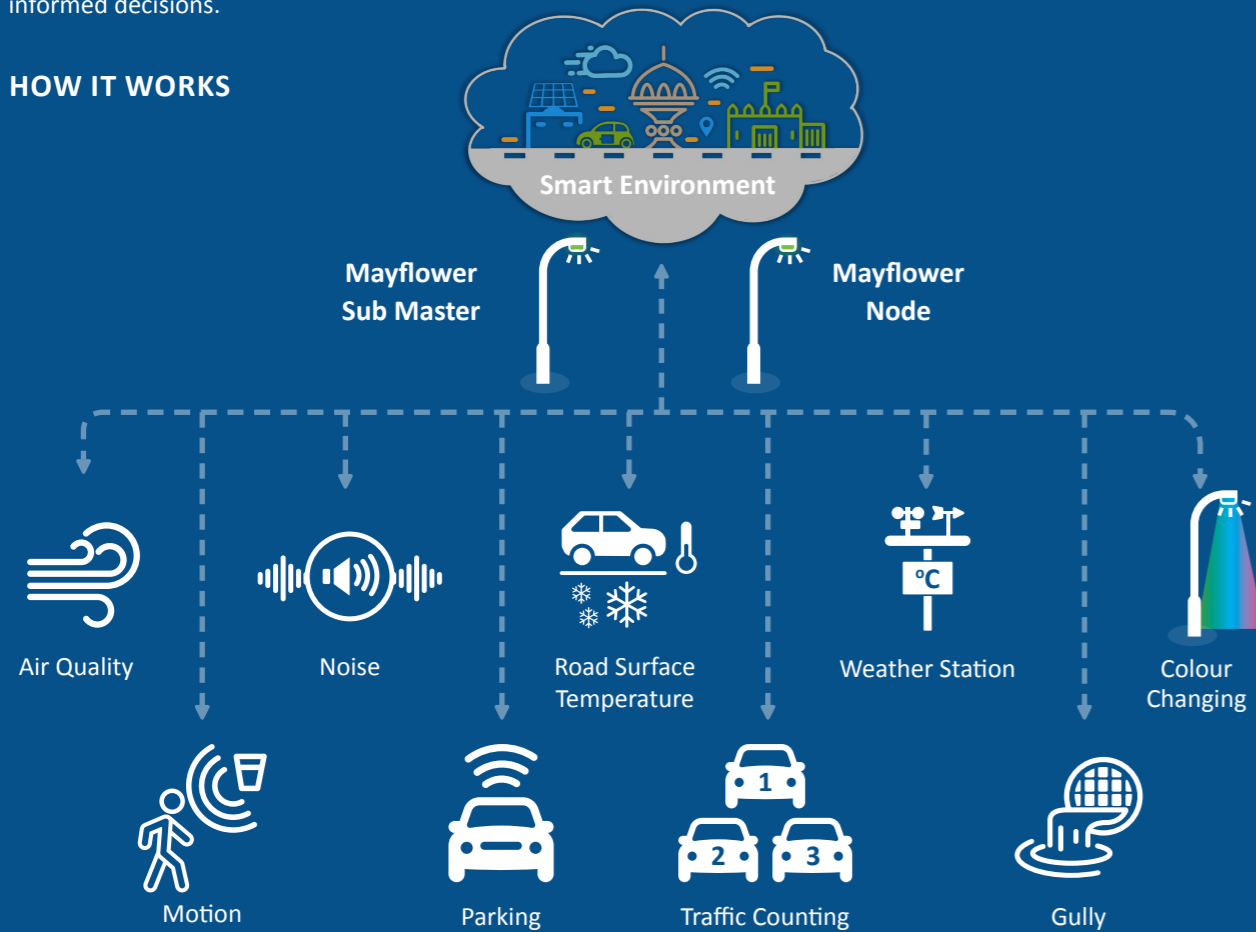
## SMART CITY TECHNOLOGY

Our cities are changing and at the forefront of this technological revolution is Mayflower Smart Control.

Our goal is to create a Smart City environment providing connectivity and interoperability across the widest range of Smart City sensors and applications. Clients have the potential to connect all areas of their city via this smart environment, offering unlimited data-sharing opportunities and allowing city managers to make better and more informed decisions.

Utilising our existing Mayflower network we have already begun to integrate sensors such as Road Surface Temperature, Weather Stations and Gully Monitoring into our proven CMS.

At Mayflower Smart Control, we are partnering with the leading technology companies helping to create cities that are smarter, greener and more efficient.

## HOW IT WORKS



Smart Environment

Mayflower Sub Master

Mayflower Node

Air Quality

Noise

Road Surface Temperature

Weather Station

Colour Changing

Motion

Parking

Traffic Counting

Gully

"We upgraded our street-lighting technology in 2016 with the aim of cutting energy costs and carbon emissions in this area by half. Now, almost a year on, the council is benefiting from a more cost-effective, greener service. We are also using Mayflower's smart technology to monitor and maintain street-lighting centrally, reducing its cost even further by cutting the amount of call-outs."

**Cllr Bassam Mahfouz, Ealing Council**

# CLIENTS INCLUDE:

**Ealing**
www.ealing.gov.uk

*Knowsley Council*

City of **Stoke-on-Trent**

**North Tyneside Council**

www.slough.gov.uk
**Slough**
Borough Council

**Nottingham**
City Council

Hampshire
County Council

**Leeds**
CITY COUNCIL

**Reading**
Borough Council
**Working better with you**

**SOUTHAMPTON**
CITY COUNCIL

west
sussex
county
council

**ISLINGTON**

**Portsmouth**
CITY COUNCIL

Dublin City Council
Comhairle Cathrach Bhaile Átha Cliath

**Bolton**
**Council**

Comhairle Cathrach & Contae Phort Láirge
Waterford City & County Council

## PLUS MANY OTHERS ACROSS THE UK, IRELAND AND AUSTRALIA

# mayflower
## SMART CONTROL

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