



COMMUNITY SERVICE

Offering CMS or lighting control as a managed service could be one way for local authorities to reconnect with their tenant businesses and smaller villages, as well as potentially providing valuable revenue in a challenging economic climate

By Dr Jon Lewis

With all the discussion about smart cities and new technology, the fundamentals of what we are trying to achieve with streetlighting can sometimes be lost.

Central management systems (CMS) now control roughly 50% of the UK's streetlights. The citizens in these areas can feel assured their taxes are being well-spent on green technologies that reduce energy consumption and cut council energy bills.

A CMS reduces the impact of streetlights on the environment and makes councils less susceptible to the energy pricing shocks that we have seen over the last few months.

With CMS, outdoor lighting is fully customisable. Lighting policies precisely reflect the needs of a particular area and can be easily modified as needs change – brighter lighting in high crime areas, dimming where residents want to have dark skies.

Increasingly, forward-looking

authorities are adopting adaptive lighting schemes that adapt automatically to the environment. Light levels can react to sensors measuring the amount of traffic on the road or change based on inputs from road sensors picking up adverse weather conditions. So, job done?

Not exactly. Let's consider the remaining UK outdoor lighting stock that isn't under CMS control and consider some of the barriers to adopting adaptive control.

- 1. Lack of staff and skills.** Austerity has left local authorities increasingly stretched, with many staff undertaking multiple roles. Adopting a CMS may seem daunting to already overloaded managers.
- 2. Smaller deployments.** Although county councils and metropolitan boroughs control the vast majority of the UK's streetlights, many villages or local communities have preferred to retain control of their lighting stock often for



Connected technologies



overheads of managing it. As such it is provided as a 'managed service' or 'lighting control as a service'.

How much direct management and daily fine-tuning of the CMS the customer takes on is flexible within a tiered managed service offer.

BENEFITS OF MANAGED CMS

Managed CMS or lighting control as a service has many benefits, in fact I'd argue three key advantages.

- 1. Lower cost.** The developers behind any software system should be able to manage the software more efficiently than most users and with the associated economies of scale do so at a lower cost. So, whilst an authority may in the past have had a dedicated lighting controls expert, this can now be outsourced freeing up local authority staff to focus on public facing issues and policy.
- 2. Best practice.** By bringing multiple users under the same operations mechanism, it is possible to share best practice. Many customers take quite innovative approaches which can be made available to others.
- 3. Aligning interests.** By making the developers of the system the primary daily users, the pressure increases to make those feature changes that really improve the service as quickly as possible.

GETTING THE BALANCE RIGHT

Even though these benefits lead to lower cost and more efficient lighting management, a balanced approach is still needed, including the need for a number of key checks and balances with, again, three in particular.

- 1. A retention of local authority control.** The lighting manager in the local authority must retain control over policy and own the overall lighting configuration. Mechanisms need to be put in place to ensure that policy is well defined and acted upon through clear key performance indicators.
- 2. Transparency around results and reporting.** The lighting manager must be able to see the results of the service, including how much energy is being saved, how many faults are being reported and how accurately inventories are being managed.
- 3. Transparency around costs.** The approach must be cost efficient and transparent. It is important this new approach is entered into as a partnership with clear metrics shared between all parties.

SOLUTION FOR SMALLER PLAYERS

All the above illustrates how the managed-service approach can help larger authorities operate their lighting smarter, as well as smart, connected lighting.

However, this still leaves the needs of smaller communities and even private sector outdoor lighting deployments; these needs still need to be addressed.

This where lighting control as a service, specifically, can provide a solution, albeit with a caveat. Lighting control as a service requires CMS vendors to engage with these users and put in place channels to support them.

An interesting alternative, therefore, is for those authorities that do retain complete control over their CMS to, themselves, offer a managed service to their tenant businesses and smaller villages.

There is already a trusted relationship between each authority and its tenants so this may be a faster route to adoption. In this case the managed service is a new revenue stream for local authorities.

Rather than having to manage a system themselves, these smaller communities get to piggy-back on their local authority's fully featured CMS, which is then managed for them.

As well as moving us all to a more sustainable future, this new managed service/lighting control as a service approach to CMS could open up a valuable new revenue stream for larger local authorities at the same time as reinforcing the partnership between the authority and its local businesses.

I'd argue this approach could help to remove the 'smart divide' that currently can exist within public lighting as well as keep the UK at the forefront of smart lighting around the world.



historical political reasons. Yet these smaller councils rarely have the expertise to run a smart lighting procurement exercise and may feel worried about how they will manage a system.

- 3. Local business tenants.** In some locations up to 40% of outdoor lighting is operated by private companies or entities. Next time you fly into an airport at night, take a look at the amount of light from shopping centres, business parks, logistics centres, universities and sports venues.

The building management system (BMS) industry that services these sites provides sophisticated facilities management tools but often these are not integrated with the outdoor lights on these estates, especially on older sites.

WHAT CAN BE DONE?

Given the environmental benefits of smart outdoor lighting, how can we in the industry therefore help get to 100% smart coverage?

What can be done to make adoption of a CMS even easier in recognition of beleaguered highways departments unable to add to their workload?

There are new delivery models that will help, ones where the CMS provider takes the burden of managing the CMS off the shoulders of the customer.

Rather than requiring customers to manage the CMS, an optional service might be for the CMS provider to manage the control system whilst ensuring all policy and oversight remains with the customer.

In essence, customers get all the benefits of the system without any of the

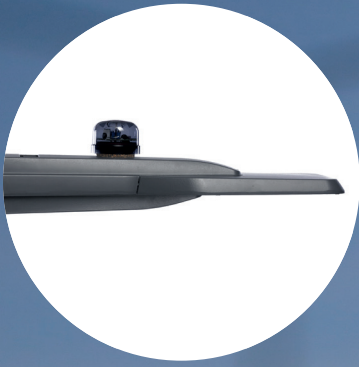


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WHAT DO YOU THINK?

Are you involved in CMS? How do you think it will evolve?

We'd love to hear your views. Either email editor Nic Paton at nic@cormorantmedia.co.uk or go direct to the ILP through your LDC or by emailing info@theilp.org.uk



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