BMS for Commercial Building Projects

Ryan Sheppard, Guest Editor, taking a stand for Freedom of Choice
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I am a firm advocate to the benefits of the KNX open protocol, primarily due to the nature of KNX as an open protocol technology and therefore not dependent on any one manufacturer or single proprietary solution. This provides an integrator with a greater freedom of choice in selecting control devices and in turn provides a building owner with a future-proof solution. Opting for KNX is not the same as advocating any particular system or manufacturer. This is a point often still misunderstood which I will take this opportunity to address and clarify.

KNX is NOT a proprietary solution it is open source – there are currently over 8,000 products available from 500 manufacturers globally and over 10,000 certified integrators who can design and install bespoke systems in any configuration that can be imagined. KNX solutions are used around the world to manage large scale commercial, residential, educational, hospitality and medical facilities, making use of the expertise, research and development derived from 30+ Years of KNX success. When we speak of KNX, we are not speaking of one solution or product, but thousands of control solutions with freedom of choice and futureproofing built in from day one.

I still come across commercial projects where KNX is under specified mainly due to the developer not fully understanding the very clear advantages that open protocol provides to the end-user in the control of building services and also for the longevity of a building investment.

Building Management Systems or **BMS**, have become a fundamental element of modern commercial and industrial buildings. The development of such requirement has been brought on by the need for energy conservation, ease of facility management and compliance with building regulations.

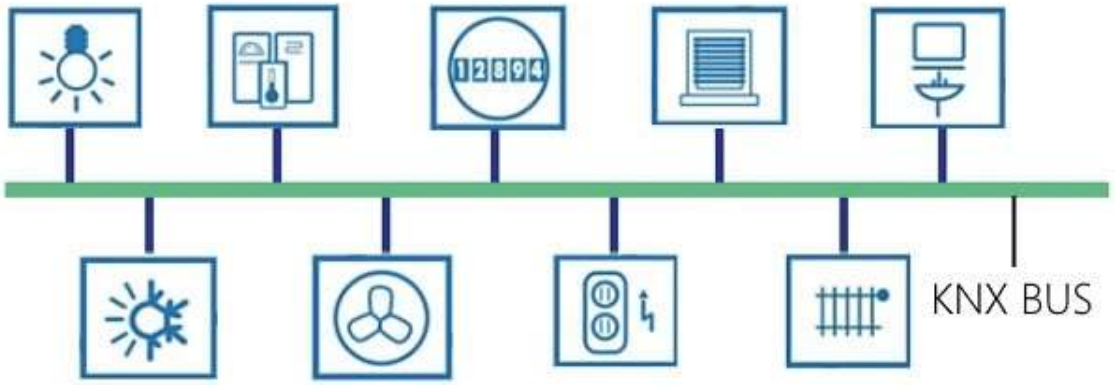
The former common approach to BMS was to control Lighting, HVAC, Shading and Security, via separate specialist contracts, whereas a modern all-encompassing KNX BMS solution would provide for much greater monitoring and control.

In addition, a KNX solution can also integrate specialist controls across multiple other protocols, such as for example: a Fire Alarm System and a Window Actuator as part of a SHEV System.

KNX has been globally recognised for many years as '**the worldwide standard for home and building control**' and is increasingly becoming the BMS solution of choice for specifiers and developers involved in commercial projects.

It should be recognised that the global market plays host to any number of Building Management Systems and whilst many can accomplish large elements of the BMS requirement, KNX still remains supreme with good reason:

- KNX can directly control all elements of building services, including Lighting, Power, access, HVAC and security
- KNX is heavily focussed on security with encryption across its entire typology (IP, TP & RF) and a fast growing enthuse on security at device level also
- KNX has protocol translation solutions meaning a deep level of integration with any number of solutions, for example: KNX to BACNET
- KNX has certified Gateway solutions to cater for all elements of building services, for example: DALI Master Gateways that sit on the KNX BUS as opposed to interfacing with a separate DALI Master installation for lighting
- KNX provides the option to have a sole controls specialist for all building services as opposed to a system-specific specialist for each system, such as for instance, Lighting, Power, Access. Blinds HVAC controls, security, etc. In addition to the improved level of joined-up coordination of systems, a sole specialist usually results in reduced maintenance costs.



Of course, the benefits of a KNX BMS extend much further, including:

- **Advanced Topology** of up to 1000M and 256 devices in a single line, up to 15 Lines per area and 15 areas per project providing a possibility of up to 57,600 KNX individual devices in a single project.
- The **KNX SELV BUS** Cable provides power and data to each KNX device across one twisted pair, thus simplifying cabling infrastructure throughout any building
- KNX offers a full suite of **advanced functions** including Timers, Logic, Scenes and secure remote access to cater for the specific lighting, HVAC and Security, control, etc. requirements of any building
- A vast and ever growing number of products and manufacturers all of which are fully compatible (forward & backward) under the KNX open-source non-proprietary standard
- KNX is future proofed, flexible and scalable

As the director of an established M&E Integration Company, I know only too well the extended lead times of the post-covid world and the urgent need to source and specify alternate chip technology. Extended lead times and increased costs greatly impact on an integrators ability to complete projects on time and to budget. This is much less so for KNX integrators, working with an open protocol, with access to the vast choice of manufacturers and products already mentioned, to source alternatives to meet programme and budget.

KNX offers a future proof and versatile Building Management Solution that gives the building owner a clear advantage over proprietary BMS systems. KNX, with its global network of System Integrators and manufacturers, gives specifiers and building managers endless options and flexibility to add or remove elements as building usage changes. A building manager is not dependent on any one manufacturer due to KNX being based on an open protocol.

As KNX doesn't belong to any one single company, a KNX BMS solution will continue to exist even though some controls manufacturers may come and go. It is the open-source technology on which KNX is grounded, that will remain connecting, operating and maintaining the KNX BMS solutions of today and indeed tomorrow to cater for new controls devices coming online that haven't yet even been imagined.

In summary, the inbuilt future-proof and interoperability of a KNX BMS solution opens up endless possibilities and can serve to increase the lifetime expectancy of a building investment.

I am proud to be part of KNX UK, the national group for professionals who advocate and promote the use of the open protocol and we're taking a stand for Freedom of Choice.