

5 vital areas to note in building management systems

Demand for building management systems (BMS) is on the rise as the need for automation of security and other systems in buildings and large construction sites around the world grows.



Glenn Noome, director, Smart Integration

Recent technological advancements in the building and construction industry, as well as the growing use of internet of things (IoT) technology in building automation systems, added to increasing demand for energy-efficient systems and the growing penetration of smartphones in building automation, are all playing a role in fuelling the growth of the BMS industry across the globe.

So says Glenn Noome, director at Smart Integration, an Ulwembu Business Services organisation, which is itself a South African black-owned management consulting and ICT services company. Noome explains, “A recent survey by Radiant Insights, ‘Global Building Management System Market Size, Status and Forecast 2025’, stated that there are several additional factors influencing the ongoing BMS market growth.

“These include cost efficiencies, the increasing adoption of building management systems within both the commercial and residential spaces, simplified building operations, and lower maintenance. Furthermore, favourable government initiatives and schemes to promote energy-efficient and eco-friendly buildings are expected to offer numerous growth opportunities for industry players and vendors across the globe, says the study.

“In South Africa in particular, the recent resurgence of load shedding has meant that both companies and individuals are more focused on energy efficiency than ever before. Thus there is a growing demand for a method of managing heating, ventilation, and air conditioning (HVAC) and lighting systems in particular – due to their power hungry nature - more effectively, and BMS can offer just this.”

A significant focus area for Smart Integration, the organisation has drilled down into the holistic requirements of BMS, outlining five vital areas, namely: data and fibre installations; utility solutions; security, access control, lighting and CCTV; monitor and control centre; and fire protection.

1. Data and fibre installations

Data and fibre installations are the cornerstone of BMS, says Noome. “The IP-based network forms the base infrastructure for most other BMS subsystems,” he explains. “These include CCTV, access and lighting control, telephone and alarm systems, as well as boardroom solutions, which are all IP-based systems that need to run on a stable, cabled backbone such as fibre or copper.”

2. Utility solutions

“Companies minimise and manage their utility (water and energy) consumption for two reasons,” explains Noome, “and these are to reduce costs, and to support their corporate sustainability and environmental responsibility initiatives. These boxes can easily be checked by utilising smart water and electricity meters, alternate energy solutions, controlled lighting systems - and even blind control to minimise heat from the sun in the office or working environment.”

3. Security, access control, lighting and CCTV

“For local businesses, security is obviously a top priority. A CCTV surveillance system can deter, monitor and record activities within the premises that may include theft, intrusion and harm to persons. The system is able to raise early alerts to enable the correct response. In addition, footage can be used in criminal cases that may result from these activities, and used to identify the perpetrators.”

4. Monitor and control centre

Noome clarifies that remote monitoring and reporting capabilities should be used to support the centralised management and control of the building and the related activities within the physical environment. “Data gathered and analysed can provide useful information for clients to identify trends, reduce false alarms, monitor and manage consumption of energy and water, and make prudent management decisions that support optimal security and effective building management,” he says.

5. Fire protection

Fire prevention, detection and suppression is a must in any populated environment. Fire protection systems must be designed, tested and inspected according to the applicable regulations, codes and standards to ensure safe working and operational conditions even in harsh environments.

“Building management systems are installed with the aim of creating secure, reliable buildings by giving access to the control and monitoring of activities such as ventilation, lighting, power control, data and fibre installation, data centre management and control, fire and security systems, lifts, plumbing systems and so on,” says Noome.

“The greatest advantages of BMS include efficient management and controlling of energy consumption, central and remote monitoring of the building, facilitating the safety and security of data, the stimulation of internal comfort conditions for the occupants of a building, and facilitating a longer life span for the building in general. At Smart Integration, we note the recent technological advances in the building and construction industry and anticipate a growth in the BMS arena moving

forward,” concludes Noome.

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