

Eight Predictions for Smart Buildings in 2008

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“Never make predictions, especially about the future.”
Casey Stengel
American Baseball Player and Manager, 1891-1975

1. Major manufacturers of Ethernet network switches will add RS-485 and RS-422 network ports to switches to directly connect BAS systems to an IP backbone. The switches will translate BAS protocols to IP and normalize data via XML. IT and Facility Management organizations will then have a new appreciation of where the technology and their organizations are evolving. Manufacturers of BAS controllers will counter by developing the next generation of controllers that will have more IT type features, hence confirming and escalating the convergence.

2. Reporting of energy usage will become more important to organizations than Sarbanes Oxley compliance. The number of people and organizations interested in a building's energy use is far greater than anyone's interest in some arcane accounting principles. When places like Dubai go green it's time to recognize how powerful this trend is. Tenants, employees, building owners, developers, governments, utilities and others all want to know how green a building is. These reports will be detailed, public, and eventually posted on a web site for everyone to examine (Google is probably already working on this).

3. The “graphics” used in many BAS systems - looking like something out of the 1970s - will finally be eclipsed by new tools. The “old” graphics provide some data but little information, they take an enormous amount of time to setup and are generally reused from job to job. Some vendor will realize that if sophisticated graphics and interfaces can be developed for games such as Halo 3, surely something more can be done for BAS systems. The new systems will have more “artificial intelligence”, provide actionable information rather than raw data, and need minimum operator intervention. In a move to attract younger facility managers, the systems will forego use of keyboards and mice, for joy sticks and gaming controls.

4. Building System Centers that monitor and manage integrated systems for multiple buildings will boom. The cost effectiveness of the approach is simply too compelling. In the future, tenants that find the building temperature too hot or cold, will not call the facility department or open a work order; instead they will have a “chat session” via the web with an agent located in some other country who will be able to control the thermostat and damper in the tenant's office.

5. A credible ROI tool will finally be delivered to the industry. A major system integrator will develop a Return on Investment tool that building owners and the industry will find credible and concrete. The ROI tool will become the industry standard propelling sales of integrated building systems as building owners are convinced of the financial advantages of such an approach. Microsoft will add a template to Excel for calculating the ROI for smart buildings.

6. The undervalued, overlooked benefits of Power over Ethernet (POE) will finally be recognized. Architects, engineers, building owners and facility managers will finally get it. It won't be because of POE's capital cost savings, operational savings or the management tools. It will be because POE will score LEED points towards certification. Think reduced plug loads and less use of materials.

7. Global, real-time asset data and location information systems will be introduced in 2008. All of the technologies needed for a system are available and awaiting integration; wireless Real-Time Locator Systems, Building Information Modeling, geospatial tools such as Google Earth, and geospatial databases. Imagine a facility manager for a portfolio of buildings instantly obtaining comprehensive information about the number and location of a specific piece of equipment from a specific manufacturer across the entire global portfolio.

8. Zone cabling for BAS, telecom and security systems will take off. Zone cabling simplifies moves, adds and changes. The cable runs are shorter resulting in less material and reduced labor to install, and also make it easier to comply with NEC code to remove abandoned cable. It saves space and may reduce the number of telecom rooms in a building. Sometime in 2008 an owner will build a large multi-story building that has one main equipment room and a cabling infrastructure using all zone enclosures without any floor telecom rooms.