

# Five Ways IoT Keeps Buildings Cleaner

*A day in the life of a facility manager, by Alan France, Vice President, Janitorial Excellence at ABM Industries*

Steve talks to things, and they talk to him. They make his job (and, therefore, his life) easier. But no, Steve hasn't gone crazy—he's just taking advantage of the Internet of Things (IoT) to help him better manage his facility.

Smart devices, machines, vehicles, and other items that communicate wirelessly, make up the IoT, and the list seems to grow daily. In Steve's world, things communicate with each other, with the facility services provider, and with him and the janitors in his building via their smart phones. All these interfaces help ensure efficiencies that save labor, energy, and costs. They also ensure that preventative maintenance is done. The facility is better maintained, and there is data available for continual improvement. Steve is also happy to report that he has fewer headaches.

5 Ways the IoT Can Enhance Janitorial Outcomes:

1. Beacons highlight areas in a facility that need attention—as janitors walk through the building, they get alerts on their smart devices, thus increasing efficiency and quality.
2. Waste receptacles with lid sensors send alerts when they are full. Janitors can plan routes and skip those that don't require attention.
3. Restroom soap dispensers send messages such as refill alerts, traffic counts, and water on the floor warnings. This creates efficiencies for janitors and benefits the building occupants as well.
4. Remote information systems attached to cleaning equipment allow management of a fleet of machines across multiple sites. The key performance metrics help improve cleaning efficiency, drive measurable results, and reduce costs of cleaning.

5. Robotic floor scrubbers and vacuums clean by themselves. A machine can be teamed with an operator who, for example, moves tables and chairs first to allow the robot to clean a break room floor, while the operator handles other tasks in the room. Alternatively for those areas that remain constant in their floor plans, the machines can do the work all alone. GPS tracking, sensors, and smart technology provide information on location, performance and maintenance issues (such as battery state), operator identity, usage, and more. One manufacturer claims that trials have shown certain cost savings of up to 25 percent.

In addition, many other smart things—such as thermostats, lights, window blinds, and security systems—are already helping commercial buildings and homes become more energy efficient, more comfortable, and safer. Information technology research company, Gartner, predicts that by 2020, there will be over 26 billion connected devices, and an article in Forbes recently claimed, “If it has an on and off switch, then chances are, it can be part of the IoT,” connecting people to people, people to things, and things to things.[1]

The IoT helps Steve do his job more quickly because he can easily monitor equipment and what’s happening in his facility. Certain actions will be taken automatically while others will require his intervention, but that’s now easier than it ever was. With constant communication between Steve, his facility services provider, and their onsite staff, Steve is able to leave the office earlier these days with greater peace of mind. He can even take all of his vacation days this year—his family thanks the IoT for that.



*ALAN FRANCE is in his nineteenth year at ABM. Prior to this year, Alan served as the Director of Sustainability, Environmental Services. In this role Alan was responsible for the oversight and the operational deployment of ABM GreenCare and worked closely with new and existing customers to implement and maintain our sustainable service programs. Alan worked with ABM's suppliers to ensure their newest products and innovations are introduced to the ABM GreenCare program. For more contact Alan at [alan.france@abm.com](mailto:alan.france@abm.com).*