

# Facilities Management



Facilities Management is about using the Internet of Things (IoT), the cloud and data analytics to manage complex school environments more efficiently. Connect digital whiteboards, computers, vehicle fleets, lighting, climate control, parking, security and more to improve visibility of assets while using automation and analytics to save cost.

The **Microsoft K – 12 Education Transformation Framework** is an effective, flexible platform for education transformation. To develop it, we combed the latest research and consulted hundreds of academics, experts and policy makers. We distilled the key insights into a single powerful framework.

**Intelligent Learning Environments** empower creative collaboration in flexible learning spaces. It enables more sustainable and energy-efficient ways of working and more responsive and coordinated security to keep learning communities safe. It also helps administrators manage facilities more efficiently to maximize learning while cutting cost.

## What is Facilities Management?

The use of the IoT and modern analytics can help reduce energy consumption, detect and predict equipment faults, and optimize facilities operation. The efficient management of facilities and energy use has to be top-of-mind with education administrators, especially considering the tightening budgets and rising energy costs. But improving efficiency on a campus isn't just about cost containment. Today's environmentally conscious students and parents have increasingly high expectations that the learning institutions they are attending are making wise use of limited natural resources by using energy-efficient technology.

*"With all the data they can access and analyze using Power BI for Office 365, governments can precisely target ways to reduce energy consumption."*<sup>1</sup>

**Azizan Aziz**

Senior Researcher, Center for Building Performance and Diagnostics at Carnegie Mellon University



Education Transformation Framework  
[microsoft.com/education/leaders](https://microsoft.com/education/leaders)

## Guiding Questions:

- How will education systems tackle the tightening budgets with facilities management?
- How can facilities management improve energy efficiency for buildings?
- How will facilities management improve the grounds of school administrators and campus planners?

## Expected Outcomes

Many education systems face tightening budgets. IoT, the cloud and data analytics can help by automating asset and facilities management and providing efficiency insights.

- Rich analytics on building functions
- Energy efficiency
- Thought leadership in sustainability
- Cost reductions throughout
- Optimized facilities utilization

“With Azure cloud services, we don’t have to buy a server, and we can store three years of data. That’s important because in New England, winters can be very different. You really need three years of data to compare.”<sup>2</sup>

**Ruthy Bennett,**  
Regional Energy Manager for the towns of  
Arlington and Bedford

## Technology as an Enabler

Many of today’s administrators and campus planners are looking to improve their grounds by augmenting more and more “smart buildings.” These campus structures are specifically designed to make use of today’s latest energy-efficient technology to help:

- Reduce energy consumption
- Predict and detect faults
- Reduce minor disasters
- Help save money and go green

## Further Reading

**Primary school’s energy management transformed by cloud-based insights.**

Read full story: <https://aka.ms/lx26xv>.

**Carnegie Mellon University (CMU) wanted to improve building management and energy efficiency, so it implemented the PI System**

Read full story: <https://aka.ms/Gilo5v>.