Improving O&M and IT Collaboration to Keep our Buildings Smart and Secure

Influences on IoT Collaboration

Org Challenges for IoT in Buildings

- The number of Internet of Things (IoT) devices are increasing in buildings
- Rise in IoT use increases security vulnerabilities
- Keeping IoT secure is impeded by differences between Information Technology (IT) staff and Operations and Maintenance (O&M) staff, such as:
    - Different ways of working
    - Different points of view about how technology works
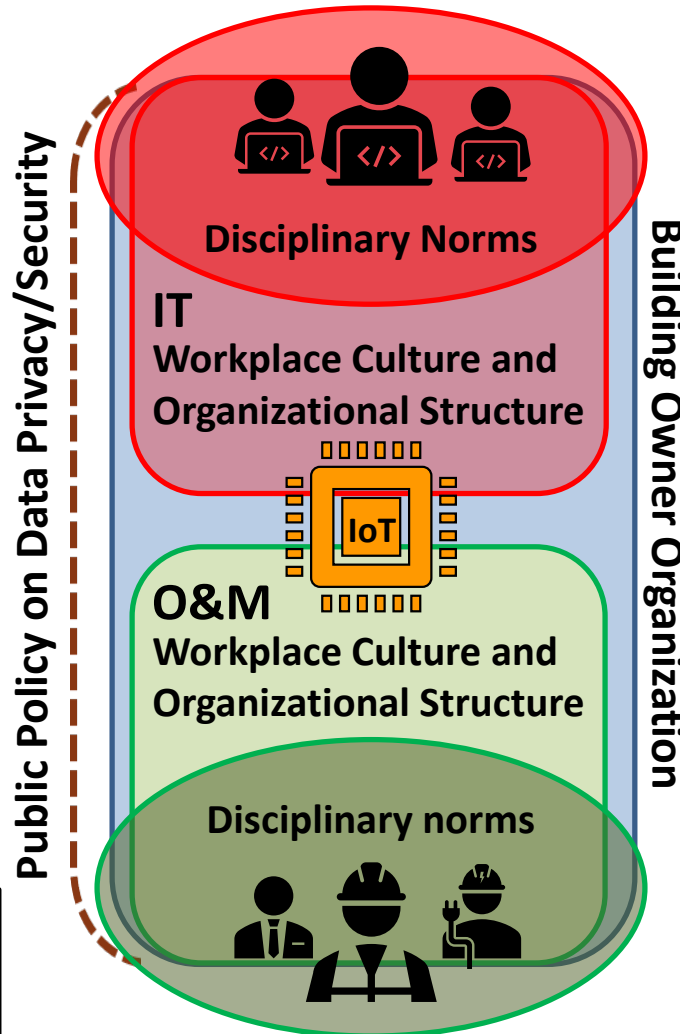   - Different organizational structures

Solutions for Success

Stronger collaboration between O&M and IT may mitigate IoT security challenges. This requires:

- Sharing expertise in meaningful ways
- Coordinating IT and O&M work tasks

We will study:

1. How O&M and IT share their knowledge and skills and work together to improve IoT security.
2. How public policies and an organization's own rules regarding privacy and security impact how IT and O&M collaborate.

Public Policy on Data Privacy/Security

Building Owner Organization

Disciplinary Norms

IT Workplace Culture and Organizational Structure

IoT

O&M Workplace Culture and Organizational Structure

Disciplinary norms

High Scientific Impact:

- Gather empirical data on current collaborative O&M and IT cybersecurity:
    - Federal and state policies
    - Organizational rules and procedures
    - Daily work practices
- Inform a range of stakeholder communities:
    - Improve cybersecurity collaborations
    - Improve IoT security

Broader Impact:

On policy and professionals through:

- An industry report on successful O&M and IT collaboration strategies;
- Published white papers on policy findings and recommendations;
- Academic presentations and publications ;
- Training for building professionals and students; and
- Prioritizing student researchers underrepresented in the cybersecurity field.

Award ID#:1932769