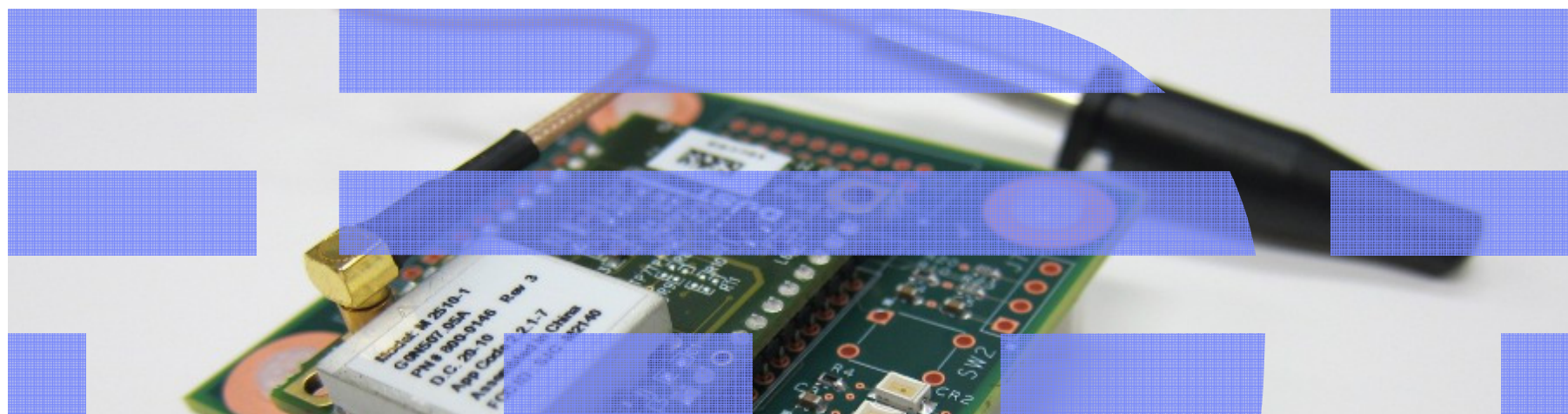


Low-Power Mote Technology

MMT Wireless Platform



Low-Power Mote Technology MMT Wireless Platform Overview

- IBM wireless sensor platform
- Unique advantages
 - **Ultra low power consumption** leveraging time-synchronization protocol
 - Flexible and modular design
 - includes radio chip, low power microcontroller, sensor boards
 - designed to support multiple sensors and expansion board
 - Very small footprint
 - IBM system design
- Applications
 - Business platform
 - Data Center Monitoring and Energy Management (MMT)
 - Telecom Central Office Monitoring (AT&T)
 - Research Platform
 - Art conservation management
 - Environmental Monitoring and Management



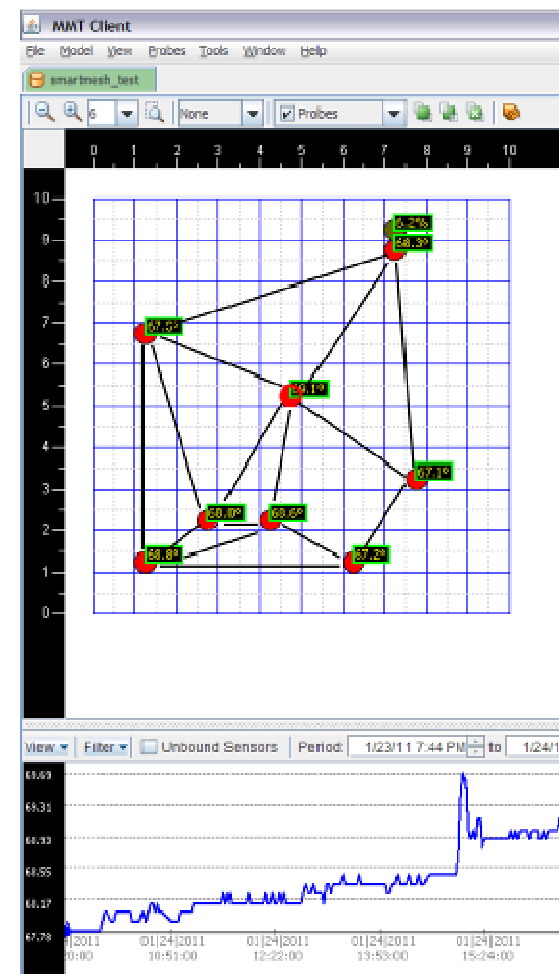
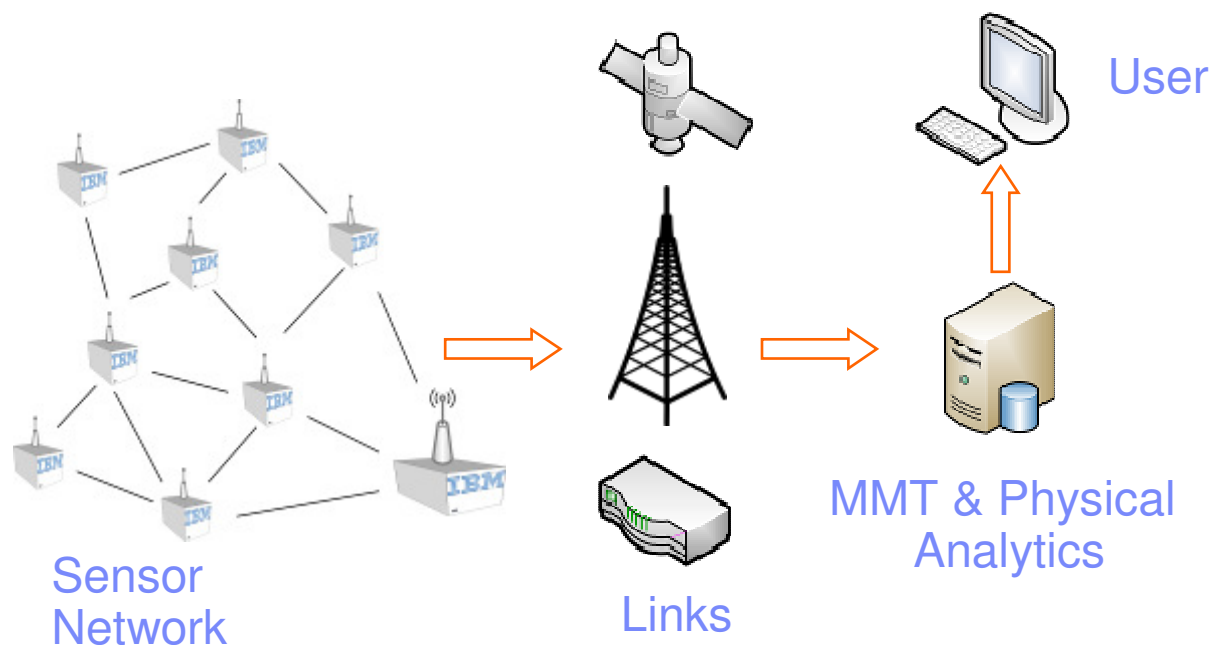
Measurement and Management Technologies (MMT)

- Measurement and Management Technologies (MMT) was originally designed for energy management in data centers
- MMT has repeatedly yielded more than 10 % of energy savings for IBM customers world-wide
- Technology supports a large range of environmental sensing systems for temperature, humidity, pressure, corrosion, etc.
- Detailed physics-based modeling yields 3D thermal, humidity, etc, maps and physical insights to optimize environmental conditions
- JAVA based software platform provides real-time analytics and feedbacks

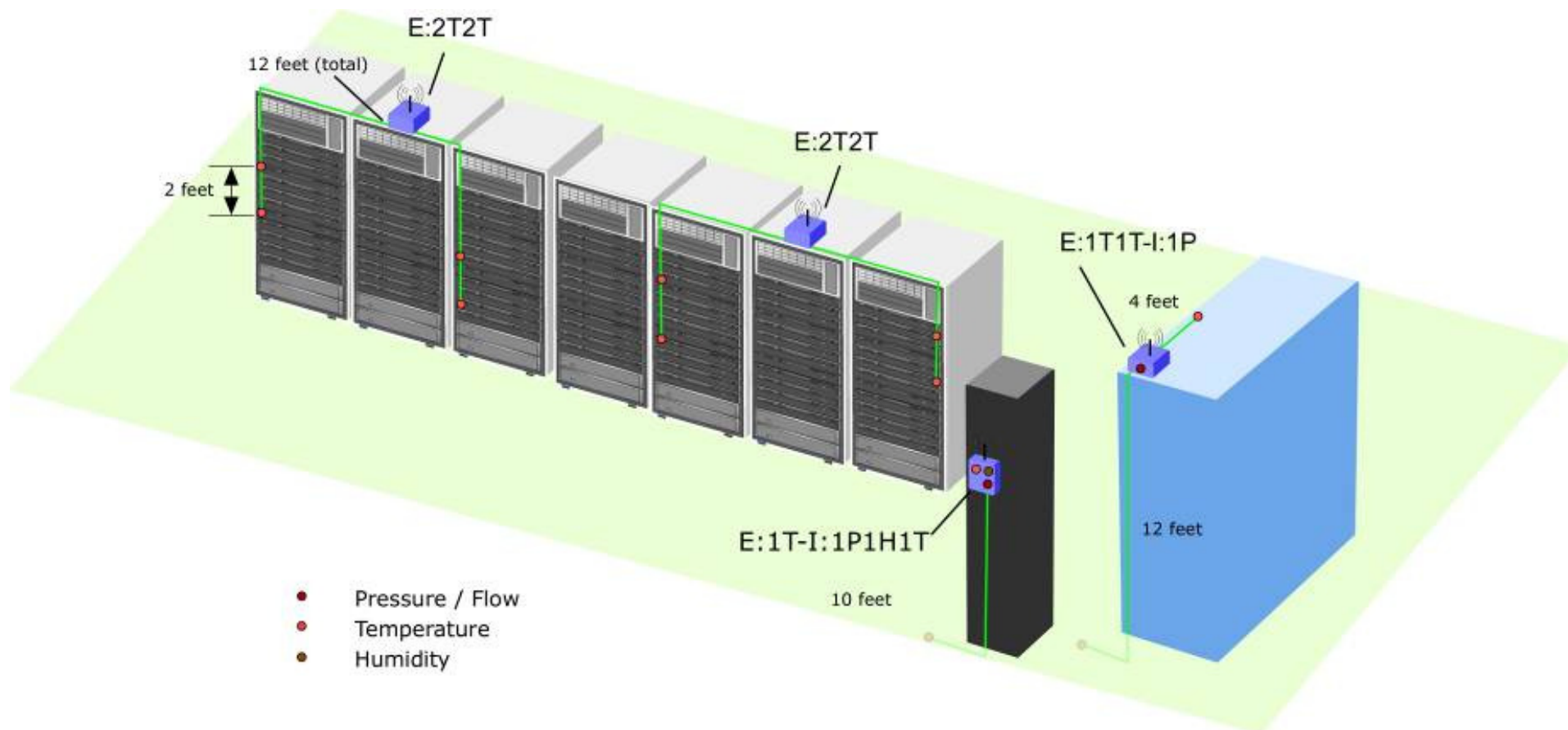


MMT Wireless Measurement Platform

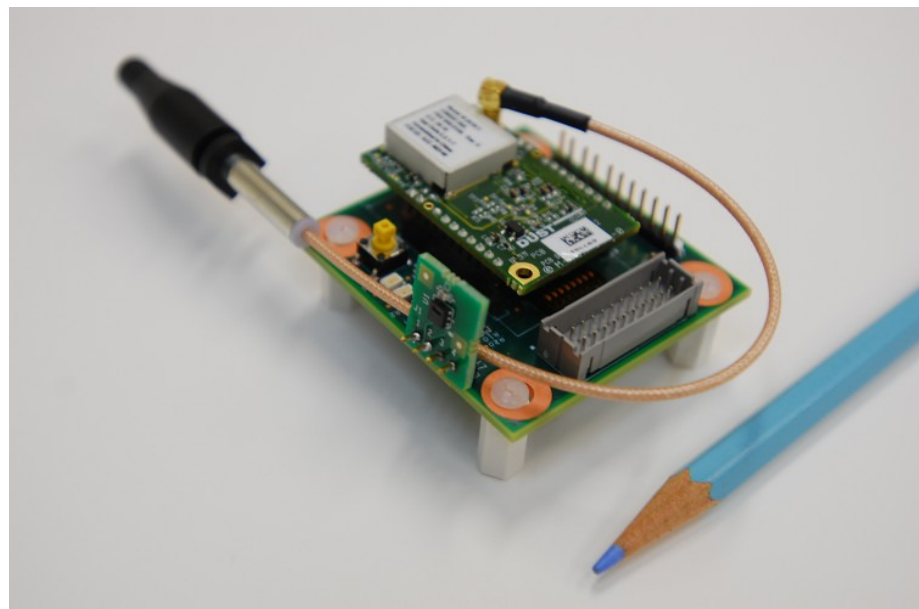
- Vision
 - Flexible solution bridging remote and ubiquitous sensing
 - Integration with smart environments & internet of things
- Technology
 - Monitoring (sensors)
 - Controlling (actuators)
- Endless Applications
 - Environment, occupancy, asset tracking, water



Low-Power Mote Technology Deployment for Data Centers



Low-Power Mote Technology Devices



Motherboard
and Radio



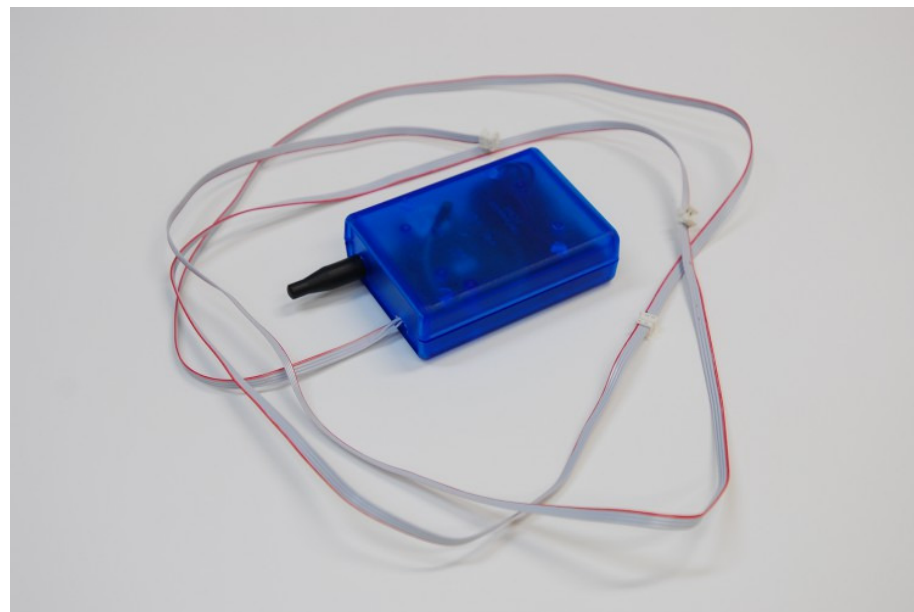
Corrosion Sensor

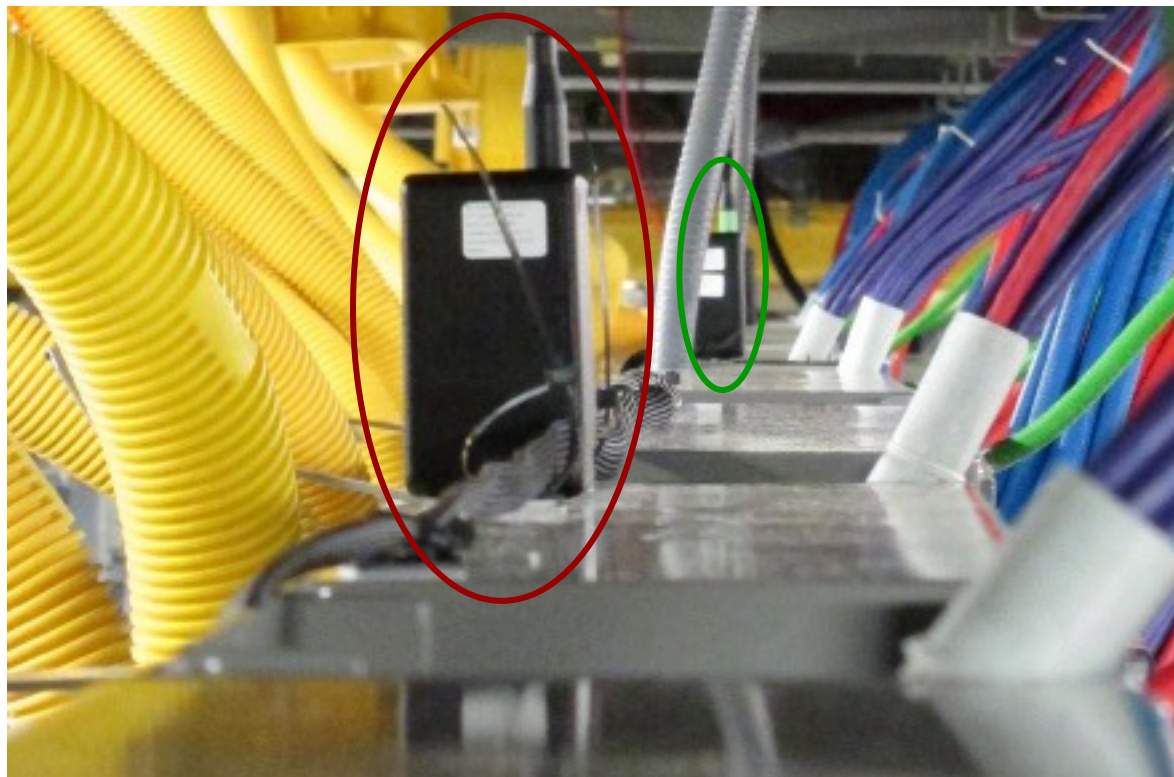


Humidity and
Temperature Sensors



Temperature
Sensors





Temperature
and
Humidity Sensors



Pressure and Temperature Sensors

