15th INTERNATIONAL OPERATIONS & MAINTENANCE CONFERENCE IN THE ARAB COUNTRIES
UNDER THE THEME: **"SMART MAINTENANCE"** CONICIDE WITH THE 15TH ARAB MAINTENANCE EXHIBITION

INTERNET OF THINGS: APPLICATIONS AND CHALLENGES IN BUILDING MAINTENANCE

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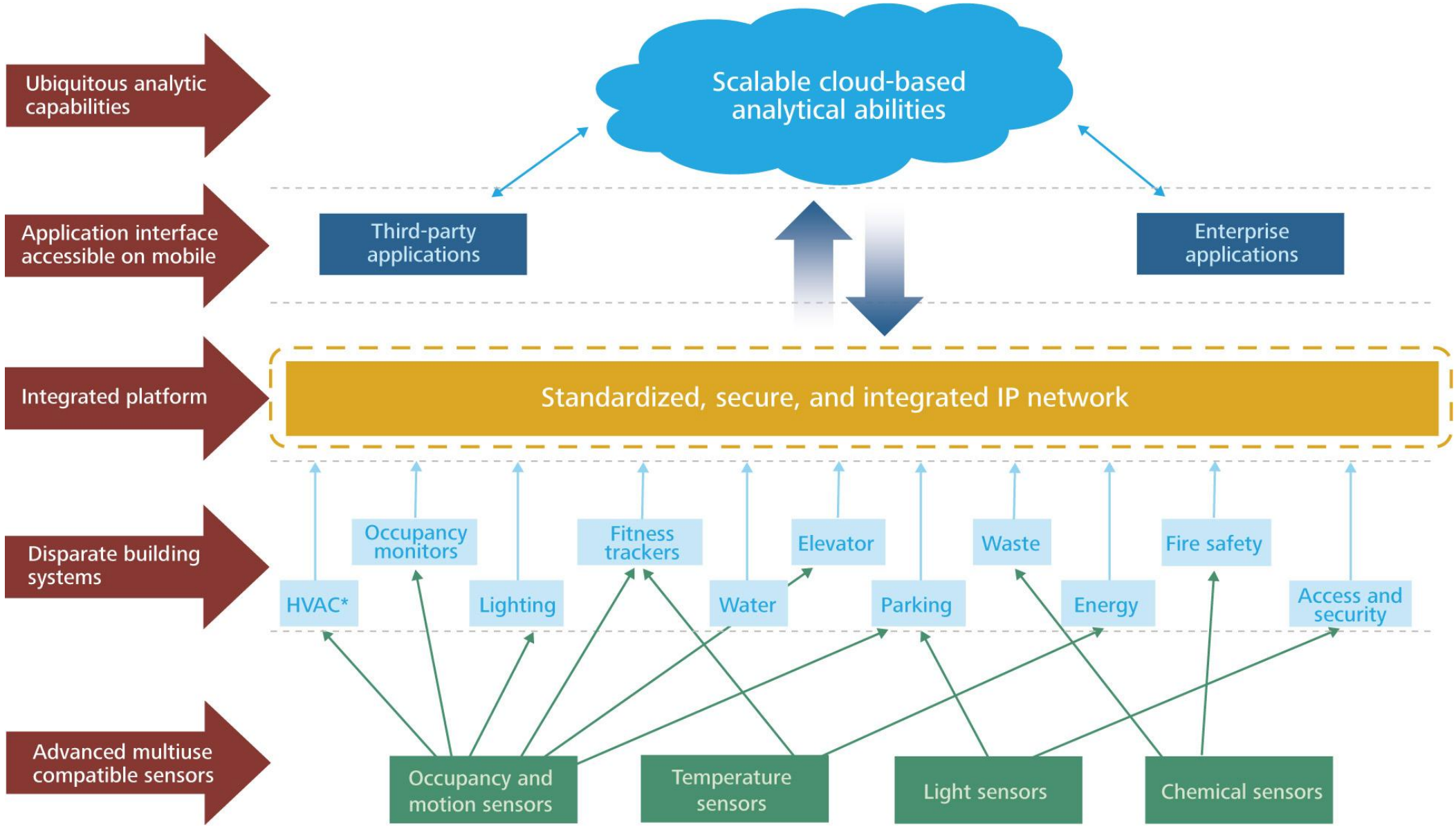
"The Internet of Things has the potential to change the world, just as the Internet did. Maybe even more so."

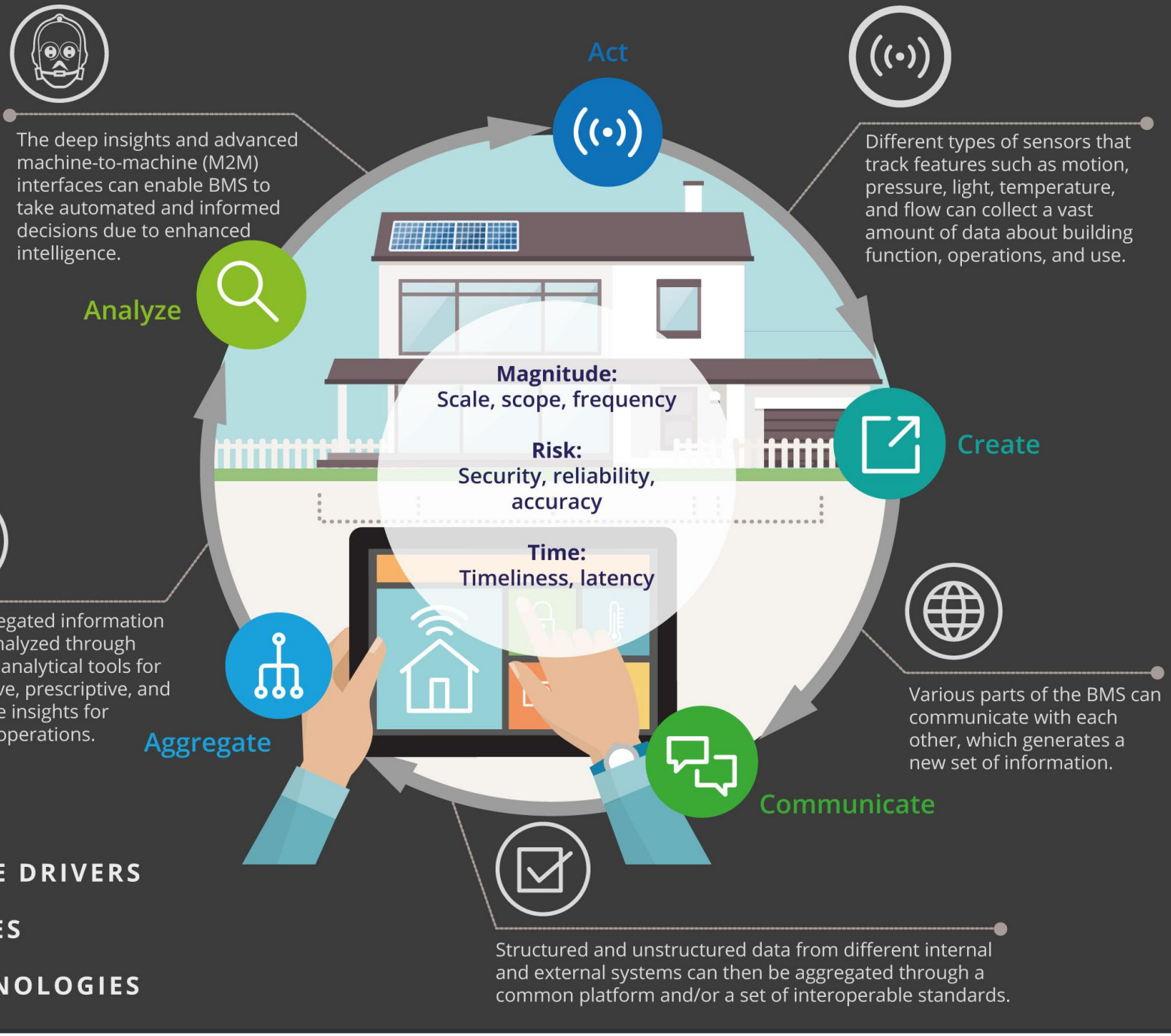
Kevin Ashton

Cofounder, Auto-ID Center at MIT

IoT can Take Small Machine Manufactures to the Next Level!
Machinery
Logistics
Devices
Retail
Healthcare
Building Energy Management
IoT



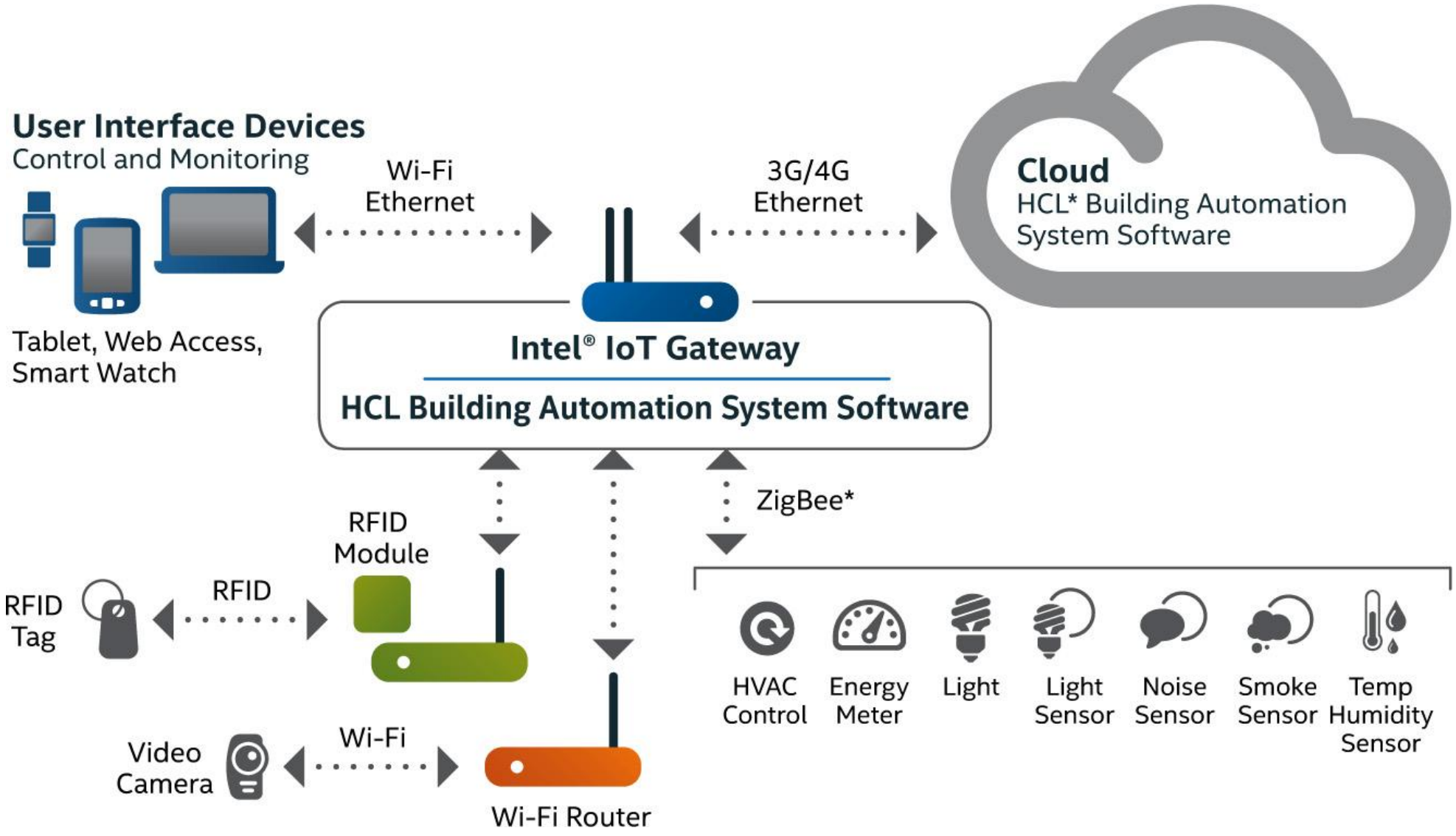
What is the IoT?



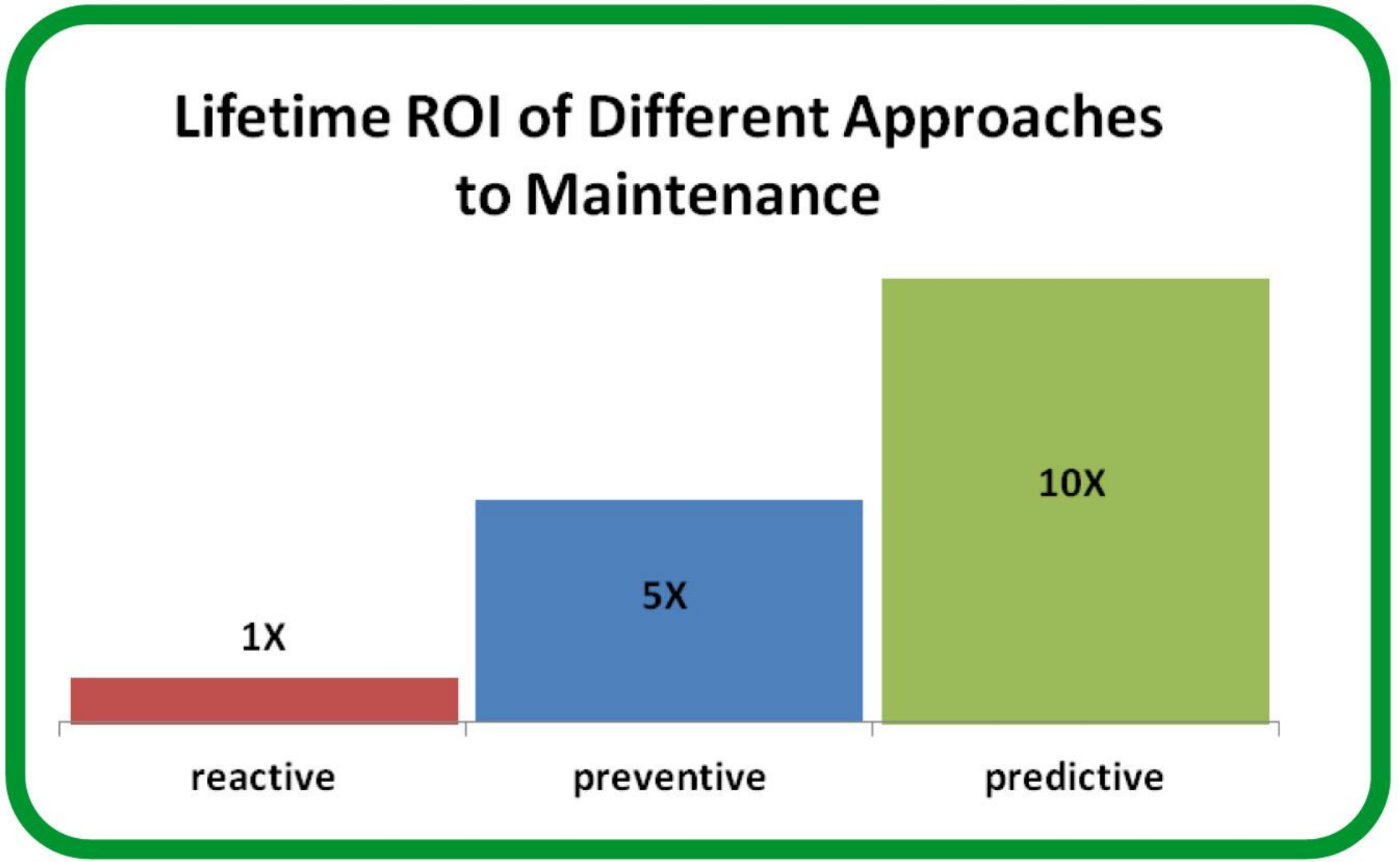
VALUE DRIVERS

STAGES

TECHNOLOGIES

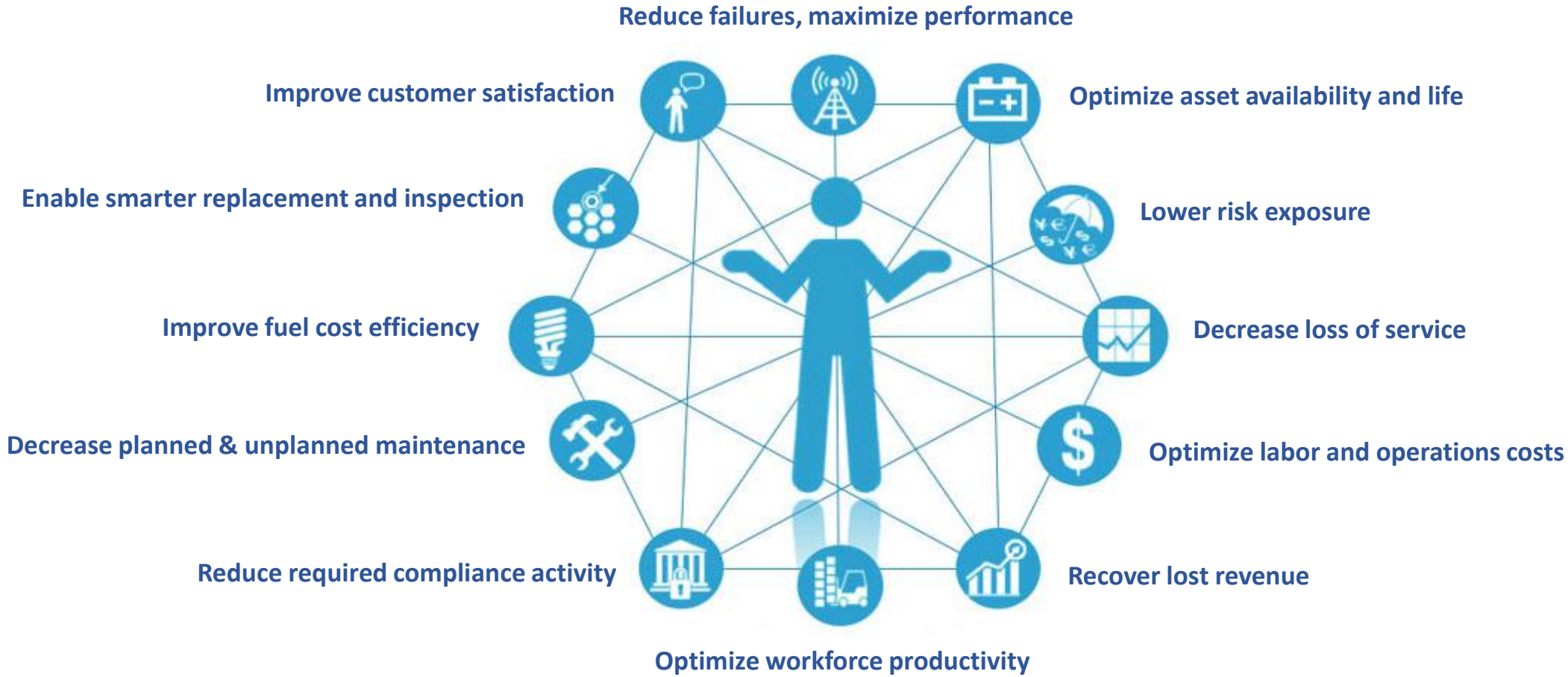


Applications of IoT for Building Automation solutions

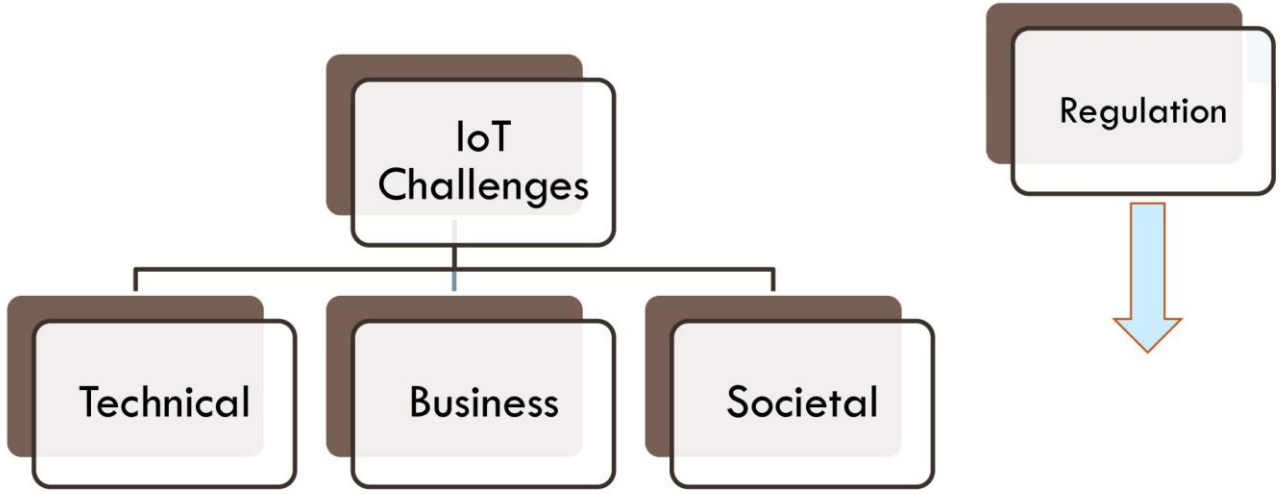


Predictive Maintenance with IoT

What if you could … ?



Benefits of using IoT applications in building sector



- Platform
- Security
- Signaling and Protocols
- Data Management
- Cloud
- Large System Management
- Power Consumption
- Connectivity
- Programmability
- Complexity
- Standardization
- Virtualization
- Smart Objects
- Communication Paradigms (cooperation and gossiping)
- …

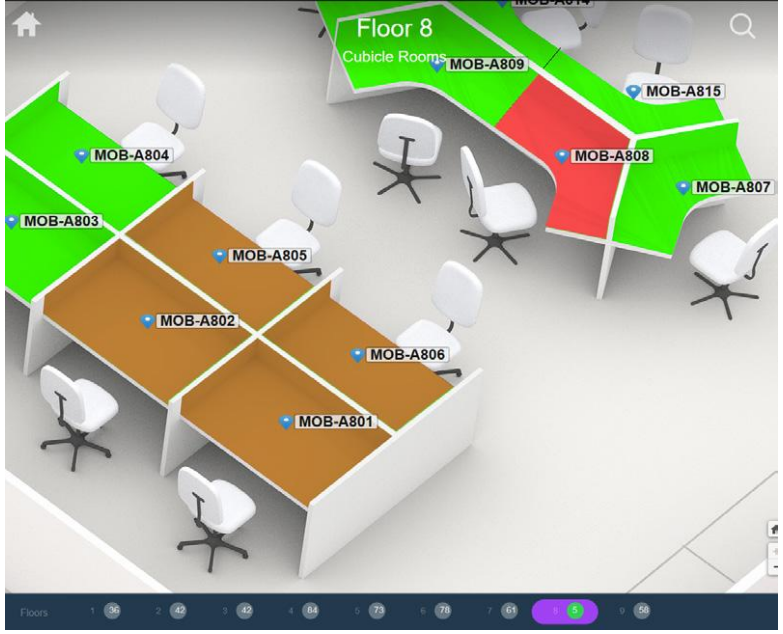
- Market Value
- New Business Models
- New Ecosystem
- Applications Domains
- New Business Processes
- User Needs
- Market and solutions fragmentation
- …

- Security
- Privacy
- Trust
- Usability
- Effectiveness
- Social Control
- …

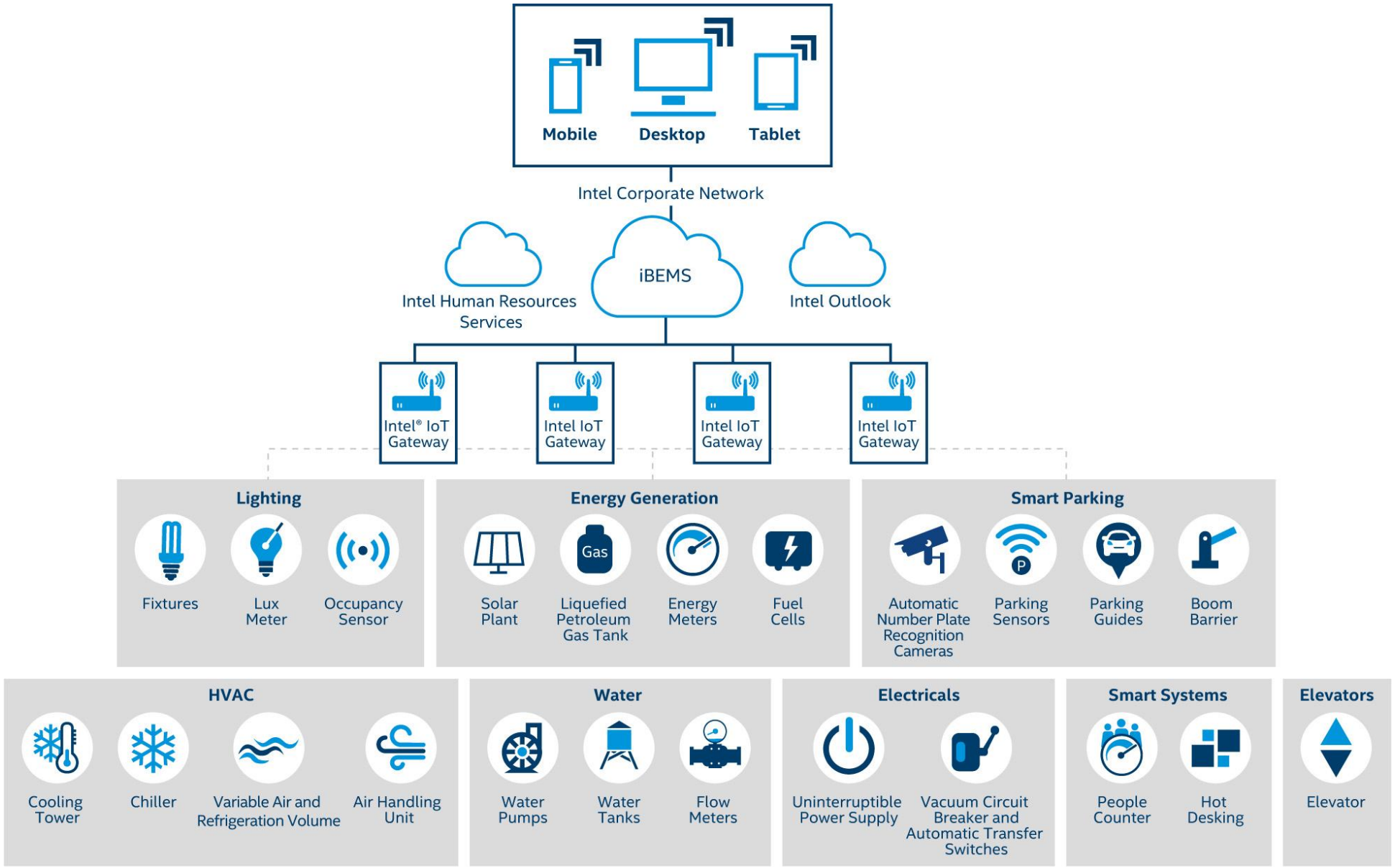
A Major Challenge of IoT
Global Cooperation !!!

Challenges Facing Building IoT Adoption

Case Studies / Intel Office Building, Bangalore, India



Case Studies / Intel Office Building, Bangalore, India



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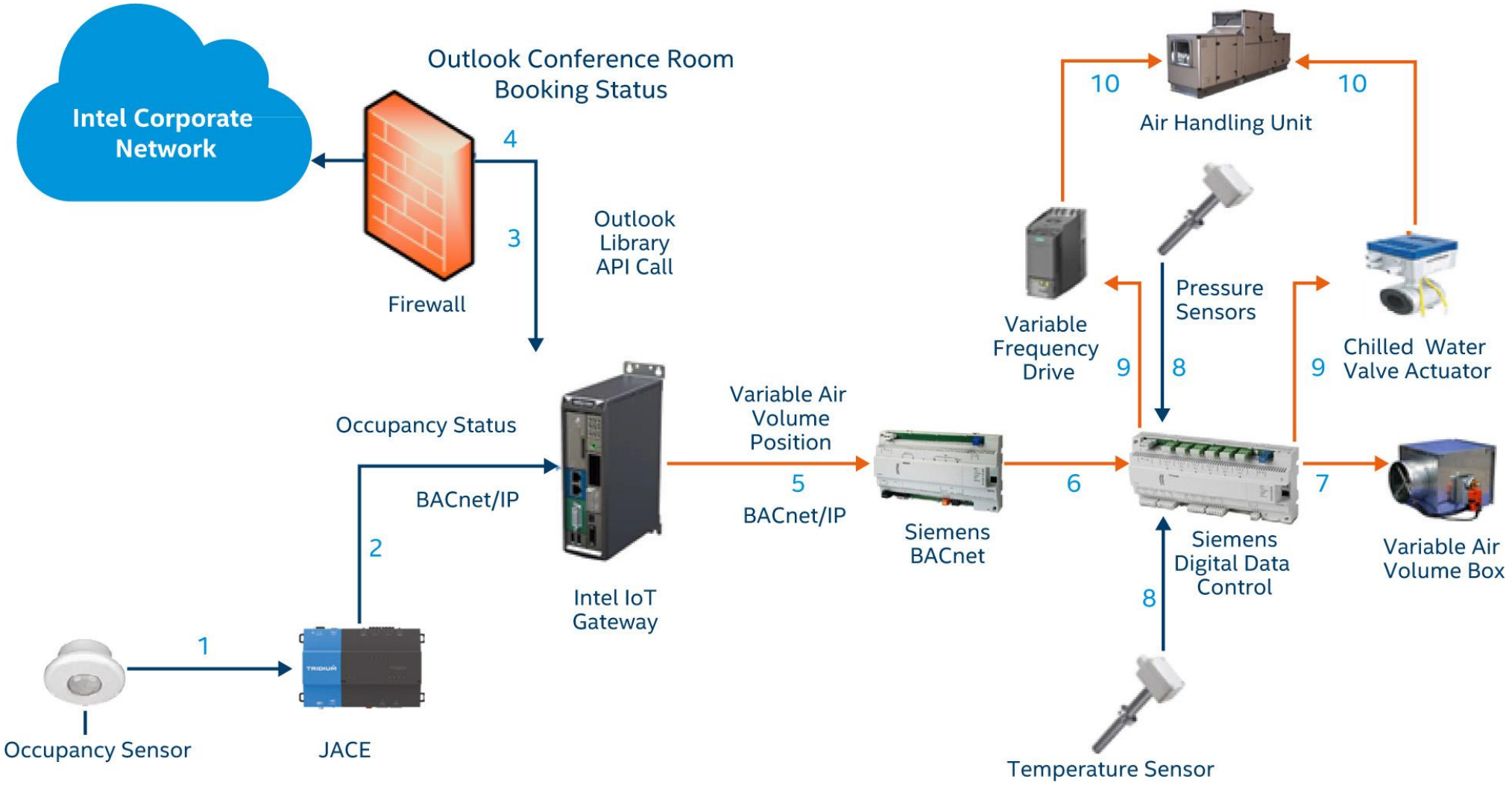

Case Studies / Intel Office Building, Bangalore, India

Case Studies / Dubai Design District (d3), Dubai, UAE

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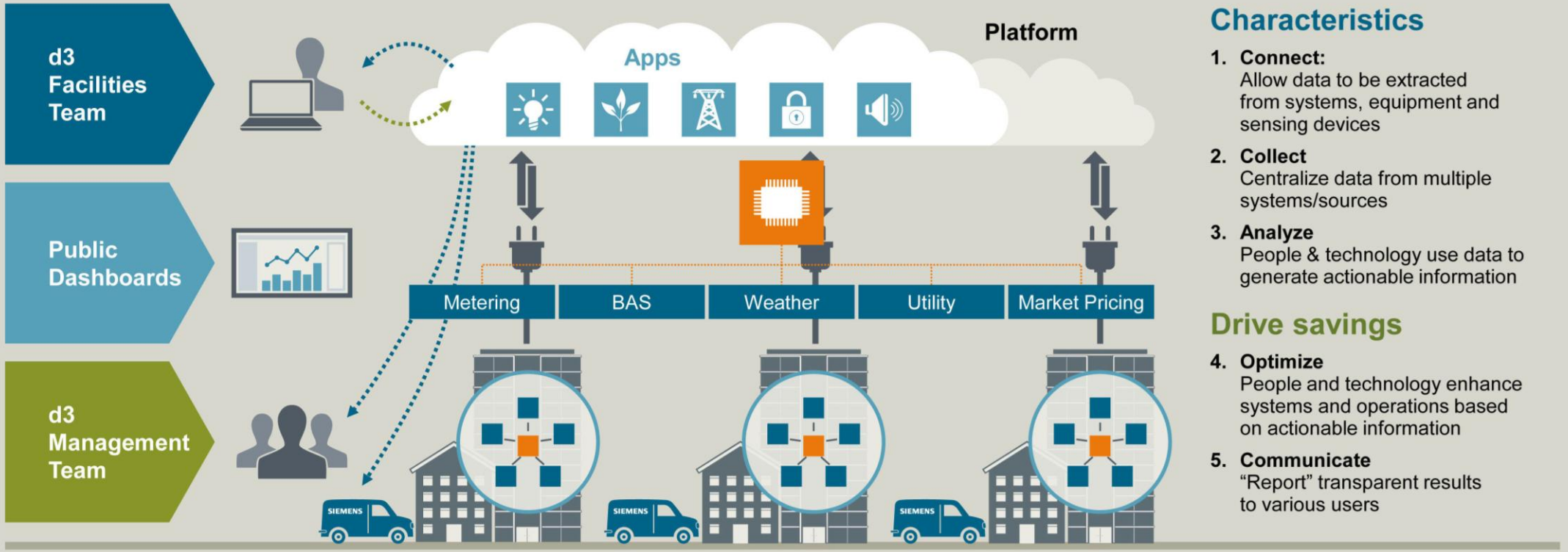
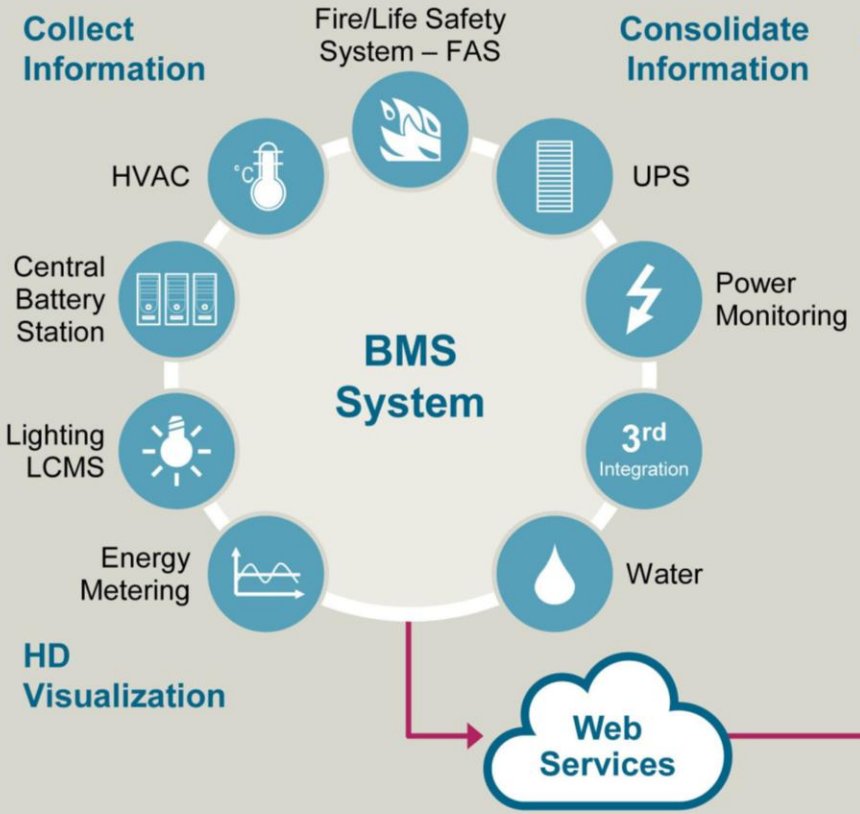


Siemens Cloud based Energy Analytics Dashboard

Total Room Automation

Intelligent Building Mgmt.



Smart Energy Analysis

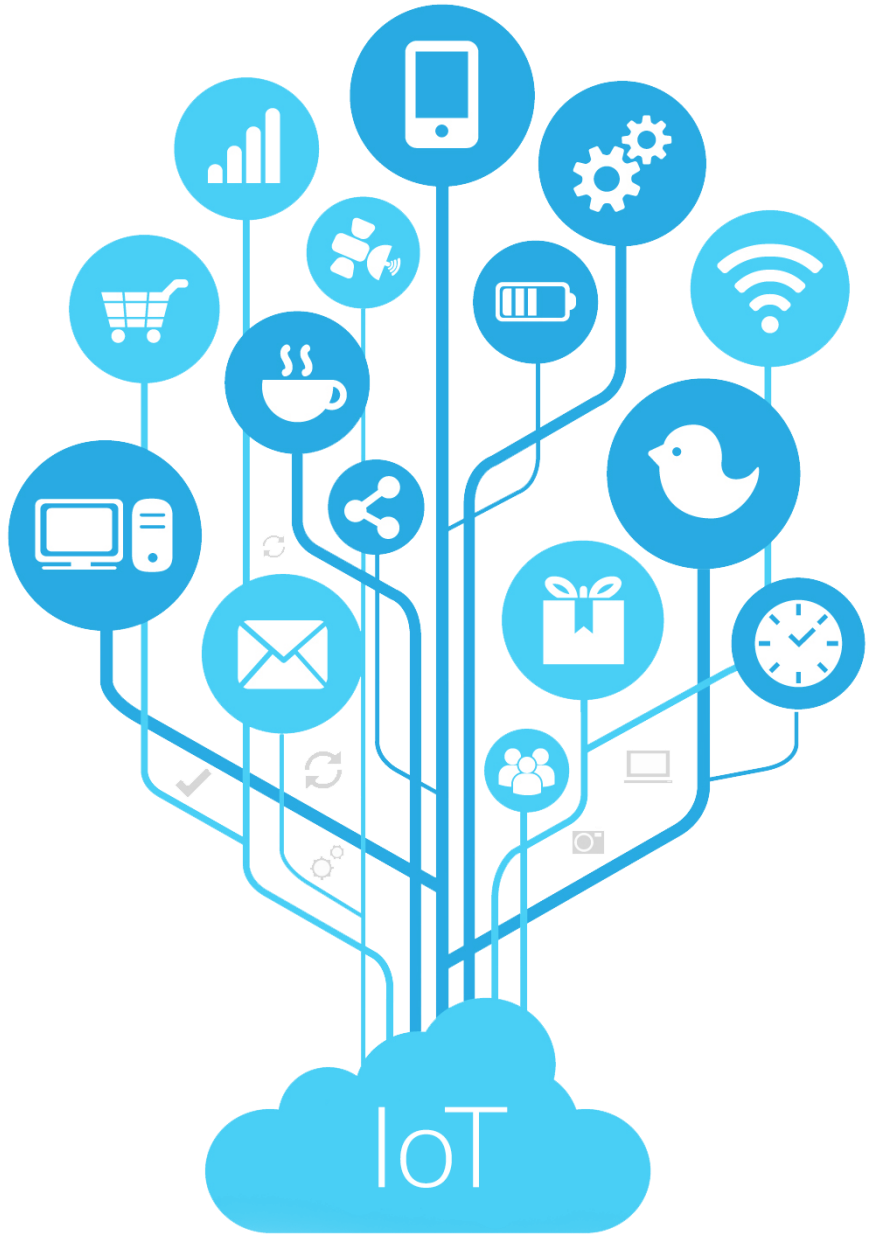
Smart+Connected Digital Platform

Case Studies / Dubai Design District (d3), Dubai, UAE

This study demonstrates why we should acknowledge Building IoT (BIoT) as a compelling component of future built environments. These discoveries show that IoT is expected to play an important role in shaping future cities. The prominent potential of BIoT is represented in a host of values like the automation and digitalization of living environments and the integrated technological facilities.

All in all, the findings in this paper indicate that this new way of thinking about real estate, overlaying an IT network, connecting all our traditionally unconnected equipment, monitoring, analyzing and controlling business processes without much human intervention, will lead to much better-managed assets, which influences to happier residents and improved finances.

Conclusions

Thank you...

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