

# Wi-Fi And the Internet of Things: A Real World Study

Rich Hummel  
AccelTex Solutions



IT Professional Wi-Fi Trek 2016



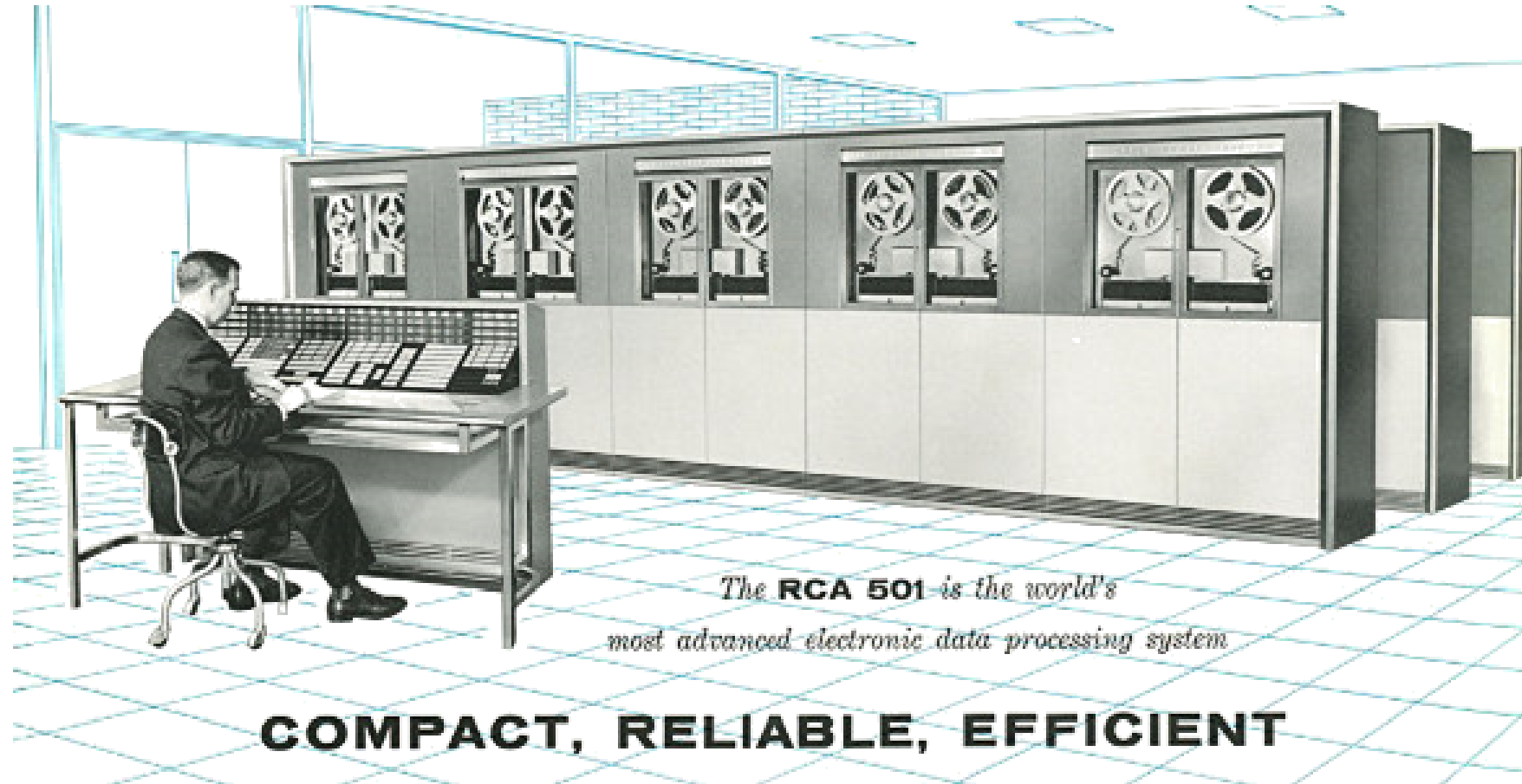
# Goals

- Think about IoT
- Share experiences
- Identify common challenges
- Maximize business outcomes



# A Look Back...1950-1980

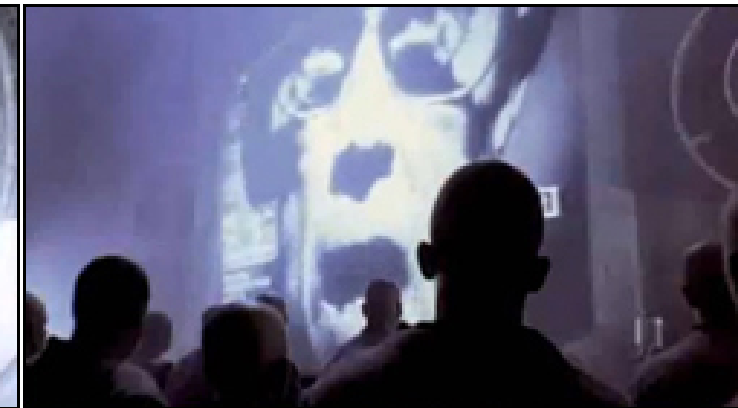
- Mainframes





# A Look Back...1984

- Super Bowl



On January 24th,  
Apple Computer will introduce  
Macintosh.  
And you'll see why 1984  
won't be like "1984"

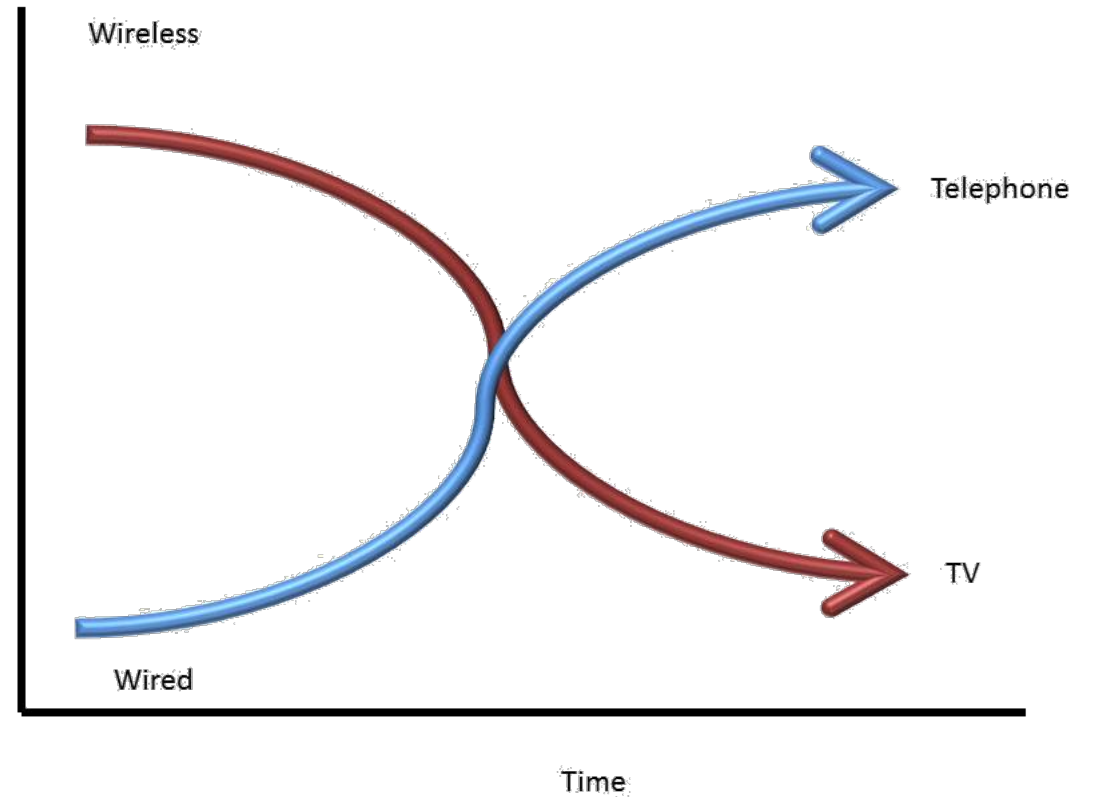


# A Look Back....1990's

- PC's are everywhere



- The Negroponte Switch



# A Look Back...The New Millennium

- The century of “i’s”





# Opportunities

## Crazy IoT Stat:

According to Cisco, the number of connected devices will rise from **15** to **50** billion by **2020**.



# Opportunities

Crazy IoT Stat:

Currently, only **0.06%** of things that ***could*** be connected to the internet ***are***.





# Potential Outcomes

- The growth is obvious
- Network expansion (wired and wireless)
- IT's Involvement in the Business Process
  - This will change the role of IT in the organization
  - IT can now be a Cost Savings/Revenue Center
- Analytics
  - What to do with all these new data points?
  - Many new software companies coming to market to help

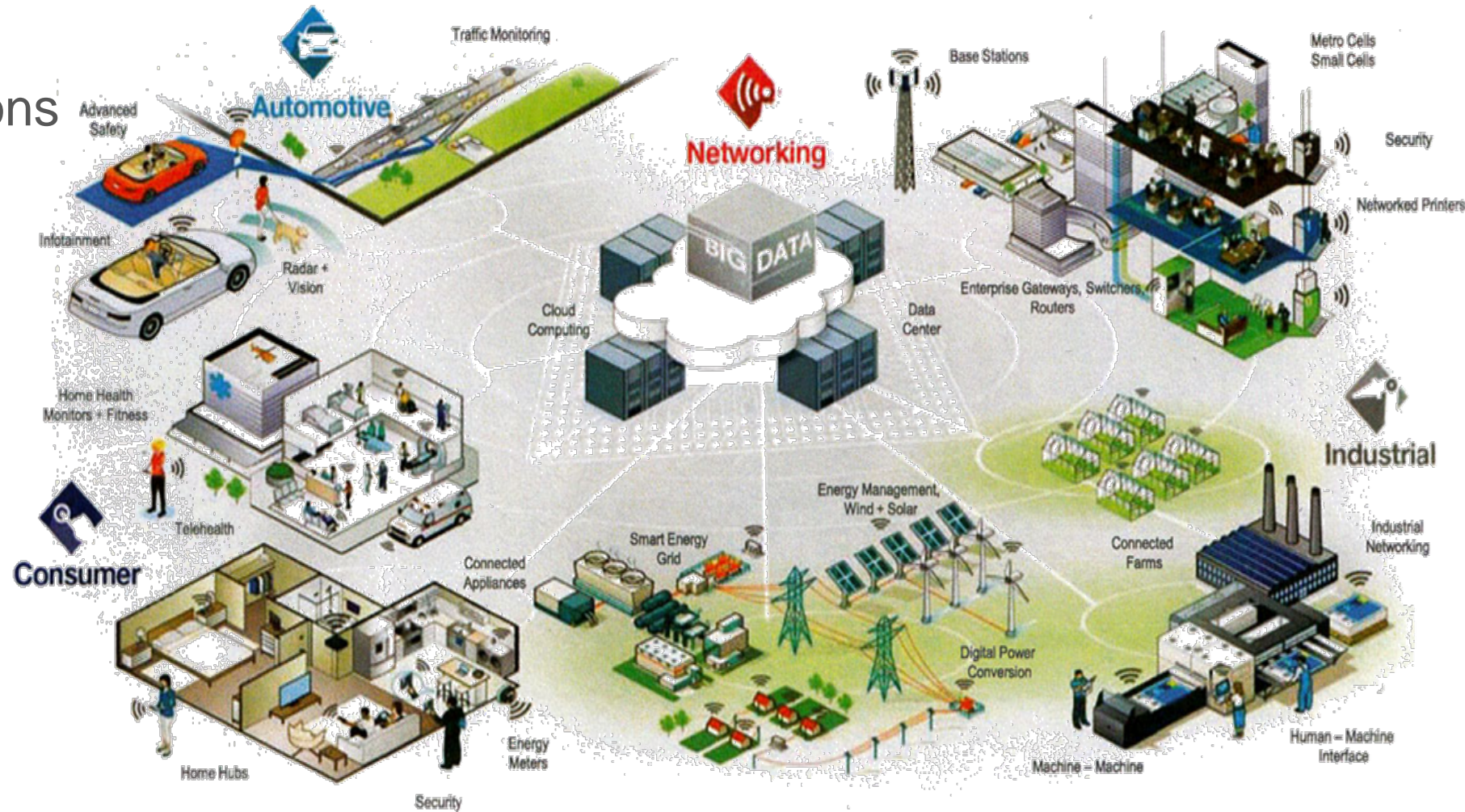


*Continue to strengthen your technical and business acumen!*



# The Internet of Things

- Limitless Applications
  - Medical
  - Municipal
  - Manufacturing





# Wi-Fi Design is an ART, not a SCIENCE





# Considerations

- Wireless
  - Throughput vs Coverage
  - Frequency
  - Interference
    - Neighboring Networks
- Security
- Power
- Management
  - Sensor companies are not network companies
    - See Automakers

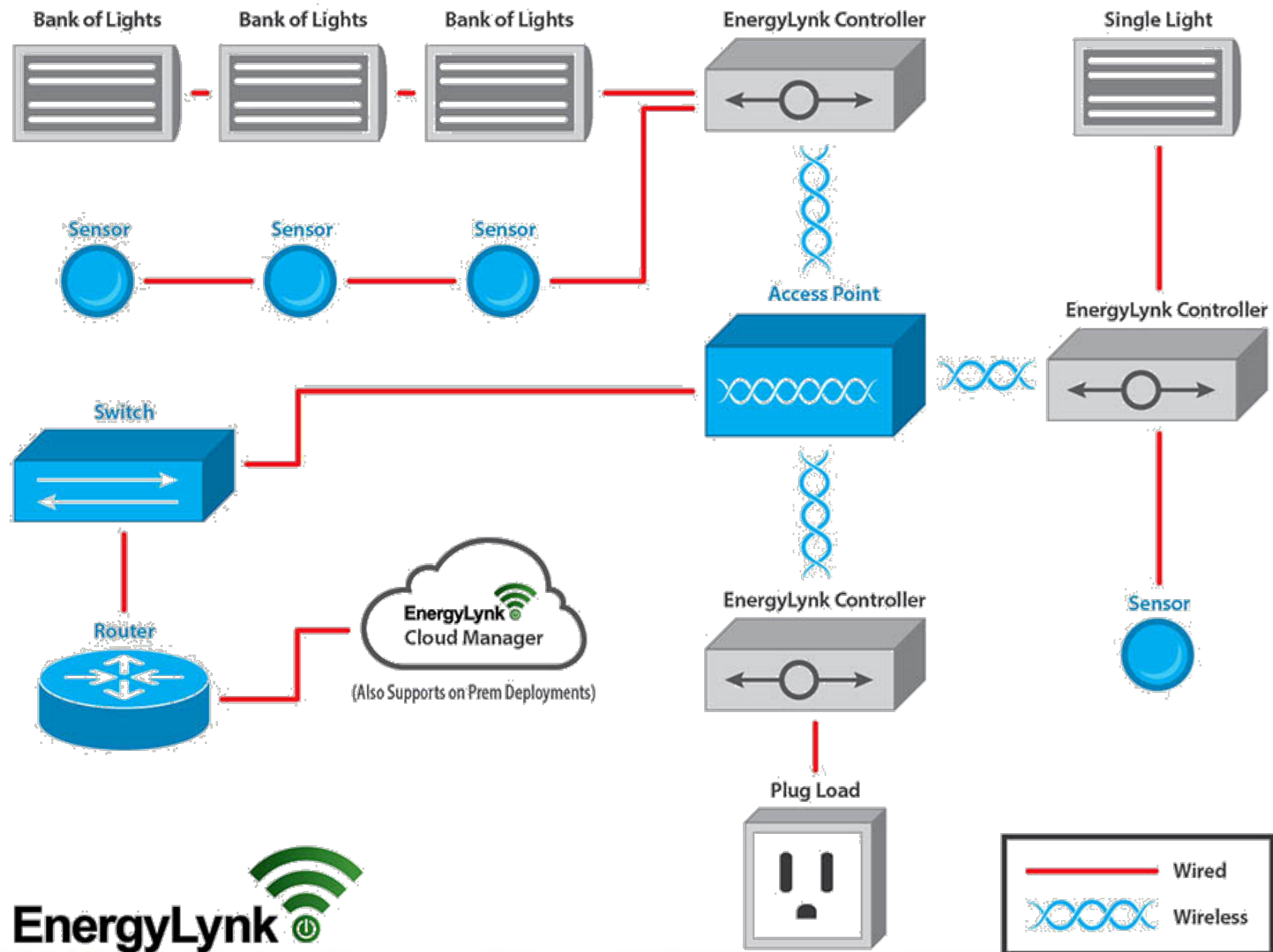


# EnergyLynk: Real World Example

- EnergyLynk
  - Part of Smart Building Solution
  - Intelligent Lighting System
  - Greenfield/Brownfield Applications
- Proven Technologies
  - WiFi, IP, Cloud
- IT and Facilities Become Savings Centers
  - Short ROI



# EnergyLynk Network Topology



EnergyLynk 





# EnergyLynk: Design Assumptions

- Easy to Deploy – Scalable
- Power
- Multiple locations
- Centrally Managed
- Secure



# Summary

- The Internet of Things is Here
- Billions of New Devices
- New Deployment Paradigms
- Challenges are Opportunities

*Are you  
IoT ready  
now?*

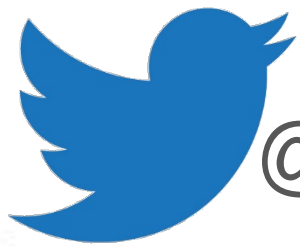


# Contact Information

Rich Hummel

Rich.Hummel@AccelTex.com

210.865.1621



@AccelHummel

