

**Realcomm.2011**

## **Introducing GPON Network Technology**

**The BIG IDEA – An Innovation Showcase of 2011’s Best Technologies!**

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# Building Modern Facilities

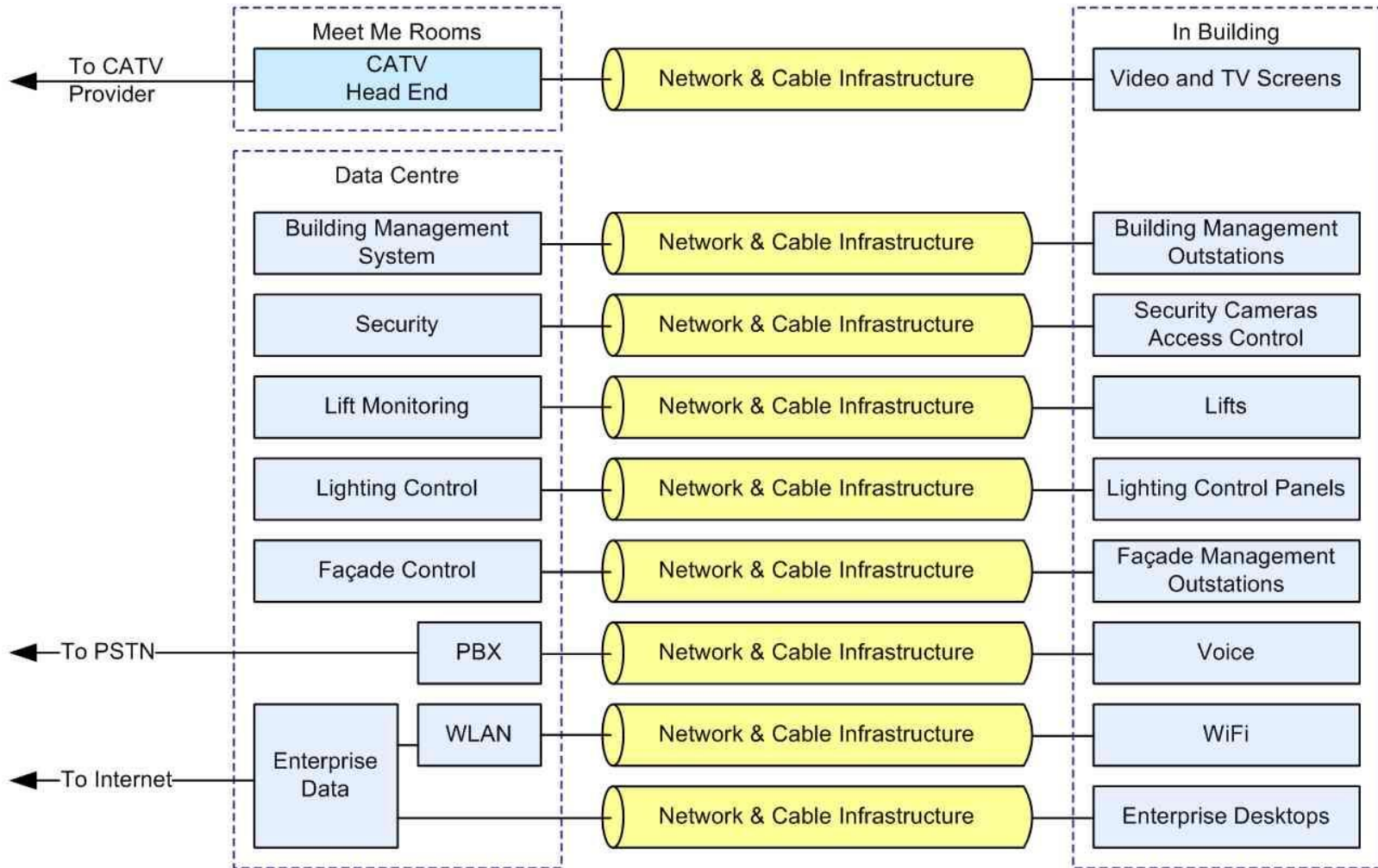
- Minimal foot print
  - Materials and technology
  - Energy consumption
  - Space utilisation
  - Cost (Capex & Opex)
- Quality of Services
  - Consistent, reliable, secure
- Control
  - Phased implementation
  - Building and enterprise system integration
  - Active monitoring and management of energy consumption
- Distance
  - Challenging distances in modern office buildings, perimeter of compounds and city developments, security of industrial facilities and national borders



# GPON - Gigabit Passive Optical Network

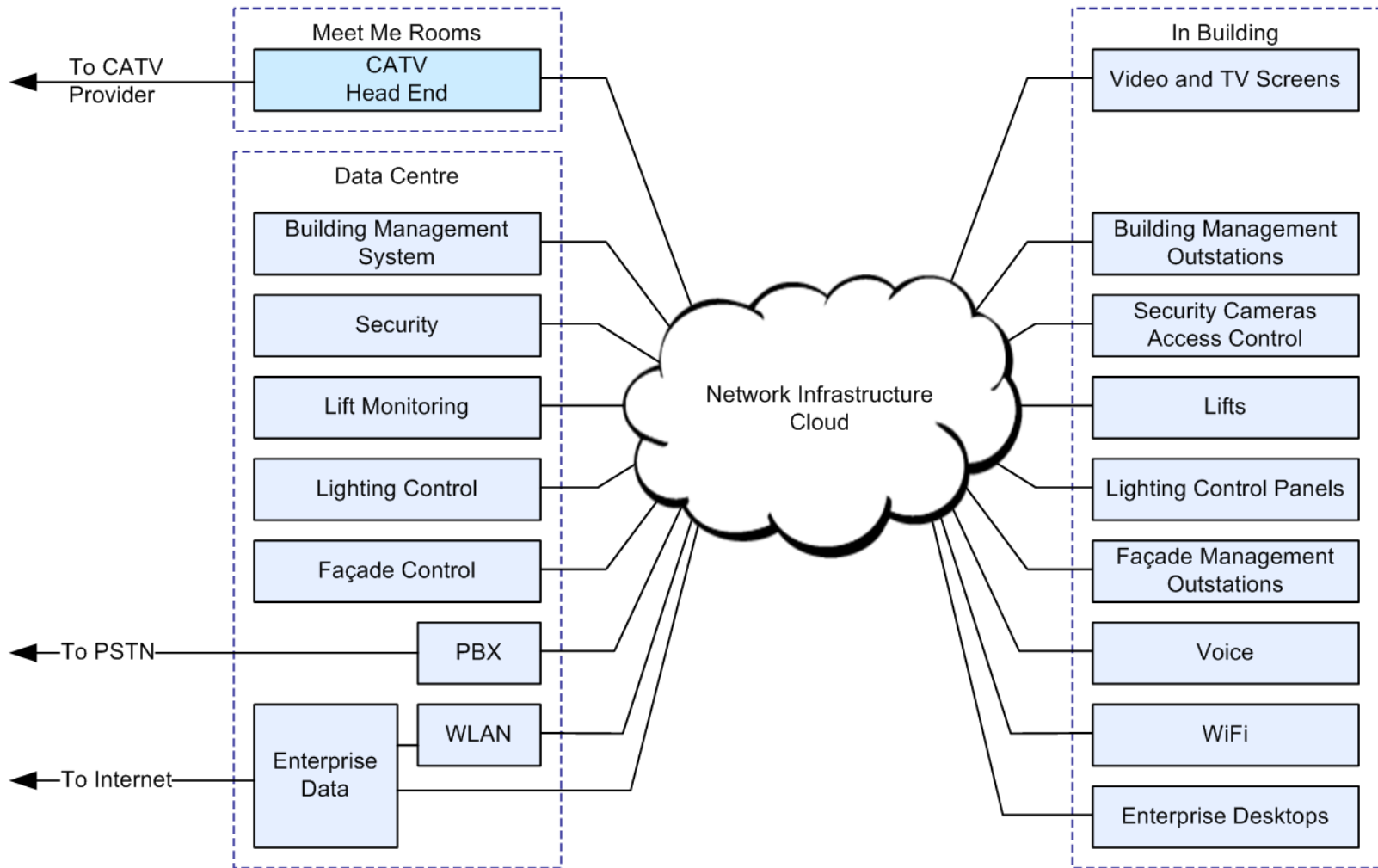
- Fiber based networking technology
- Passive optical splitters enable point-to-multi-point communications
- Parallel 'Send' and 'Return' path on a single fiber through
  - Wavelength Division Multiplexing (WDM)
  - Time Division Multiplexing (TDM)
- Quality of Service capability
  - through periodic allocation of transmission time slots to each end point
- Virtual LAN (VLAN) tagging as defined in IEEE standard 802.1Q

# From Multi-Network System



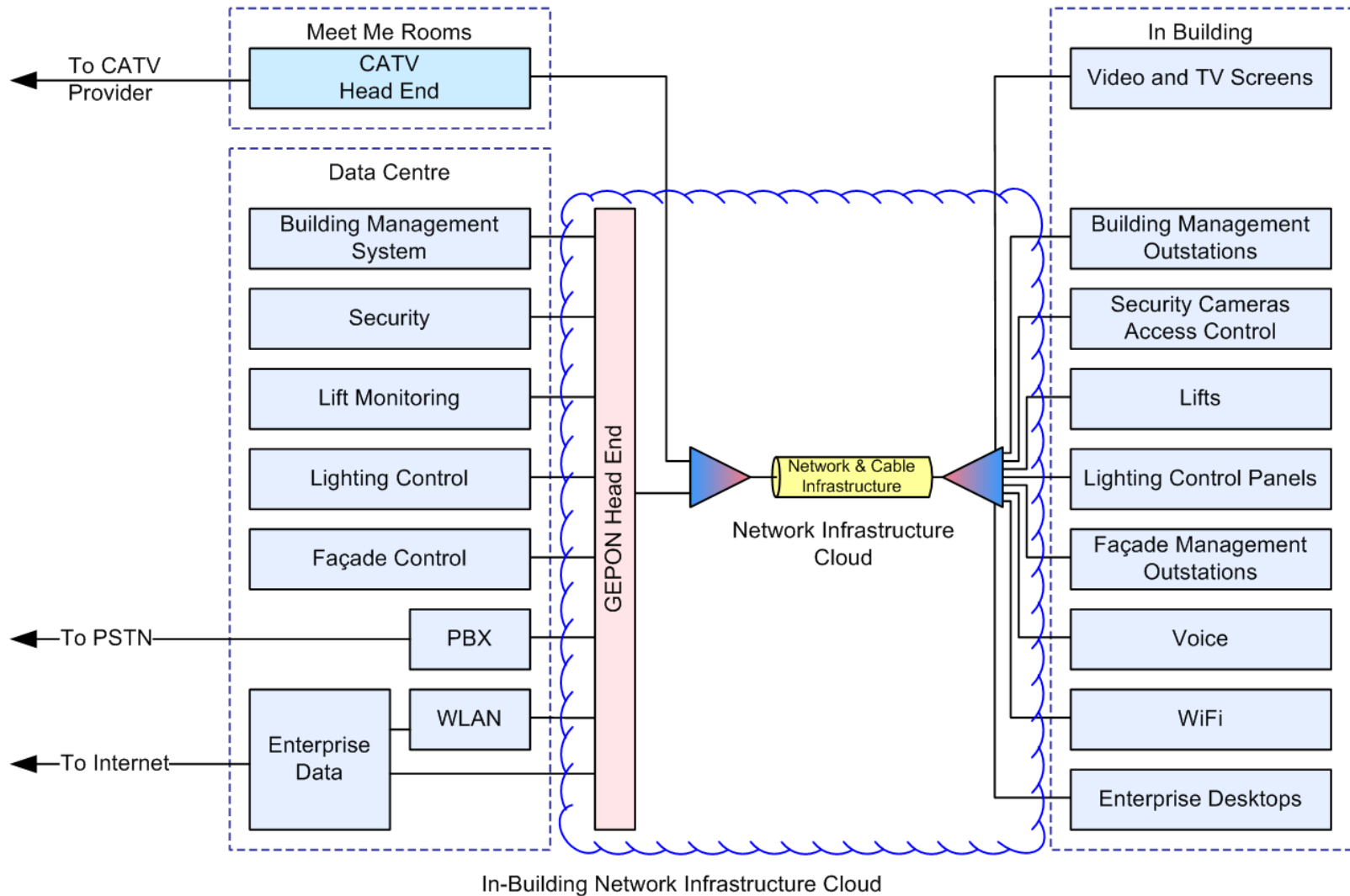
Typical In-Building Segregated Network Infrastructure

# To Network Infrastructure Cloud



In-Building Network Infrastructure Cloud

# To Network Infrastructure Cloud



# Applications

- Arcapita Bank
  - Single fibre optic infrastructure with GEPON
  - Concurrently supports
    - All real time and enterprise data
    - WiFi and 2G/3G mobile traffic
    - Master antenna system
- Riffa Views International School
  - PON based Network Infrastructure Cloud supporting
    - Wireless classroom network environments
    - Cloud based thin client technology for students
    - School administration, public address and bell system



## Read more:

- RealComm Edge 6, 2011: “PON Technology paves the Way for Cloud Networking”
- Website: [www.2024Sight.com](http://www.2024Sight.com)