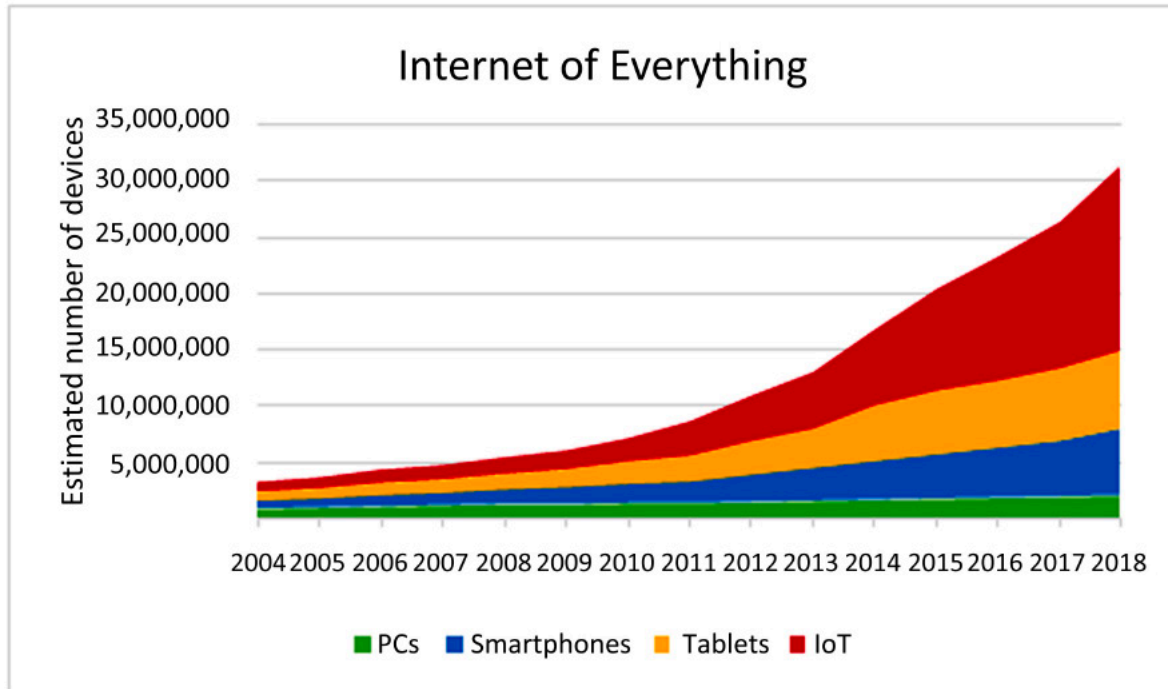


Introduction to IoT

1. Define Internet of Things (IoT)
 1. who coined the term
 2. internet
 3. things
2. IoT Proliferation
3. IoT Architecture/Stack

- Kevin Ashton (1999):
 - Things
 - RFID Sensors
 - Supply Chain
 - Internet

- New way of thinking IoT:
 - Ubiquitous and Heterogenous
 - Lots of Data
 - Services and Value
 - Scalable and reliable



Internet of Things Uses By Industry



HOME

- Smart Temperature Control
- Optimized Energy Use



INDUSTRIAL

- Machine-to-Machine Communication
- Quality Control



AUTOMOTIVE

- Vehicle Auto-Diagnosis
- Optimized Traffic Flow
- Smart Parking



AGRICULTURE

- Offspring Care
- Crop Management
- Soil Analysis



MILITARY

- Situational Awareness
- Threat Analysis



MEDICAL

- Optimized Patient Care
- Wearable Fitness Devices
- Quality Data Reporting



ENVIRONMENTAL

- Forest Fire Detection
- Species Tracking
- Weather Prediction

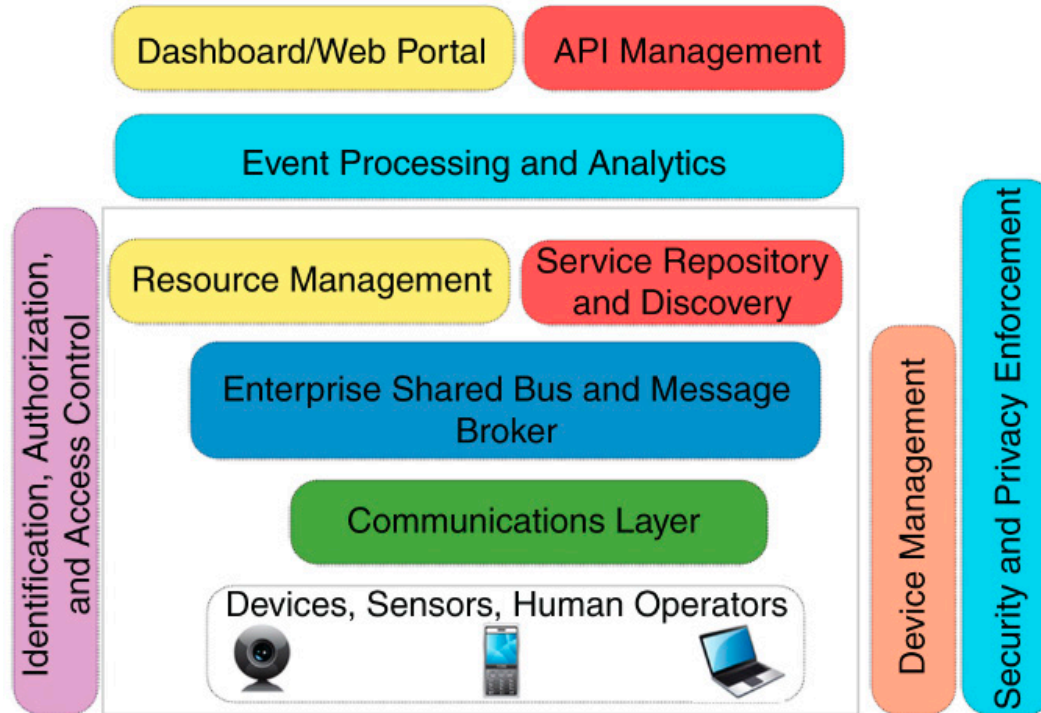


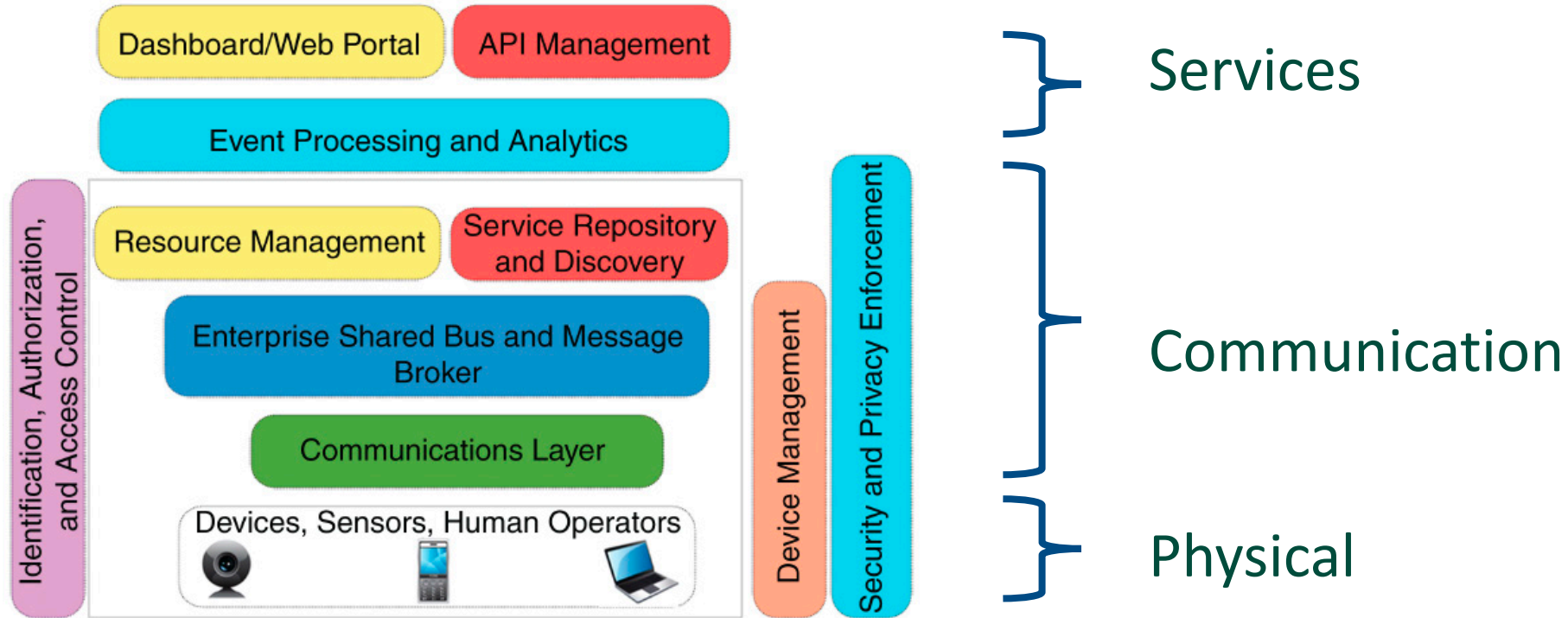
RETAIL

- Theft Protection
- Inventory Control
- Focused Marketing

Big Nerd Ranch Can Build Your IoT Application:
www.bignerdranch.com/contact







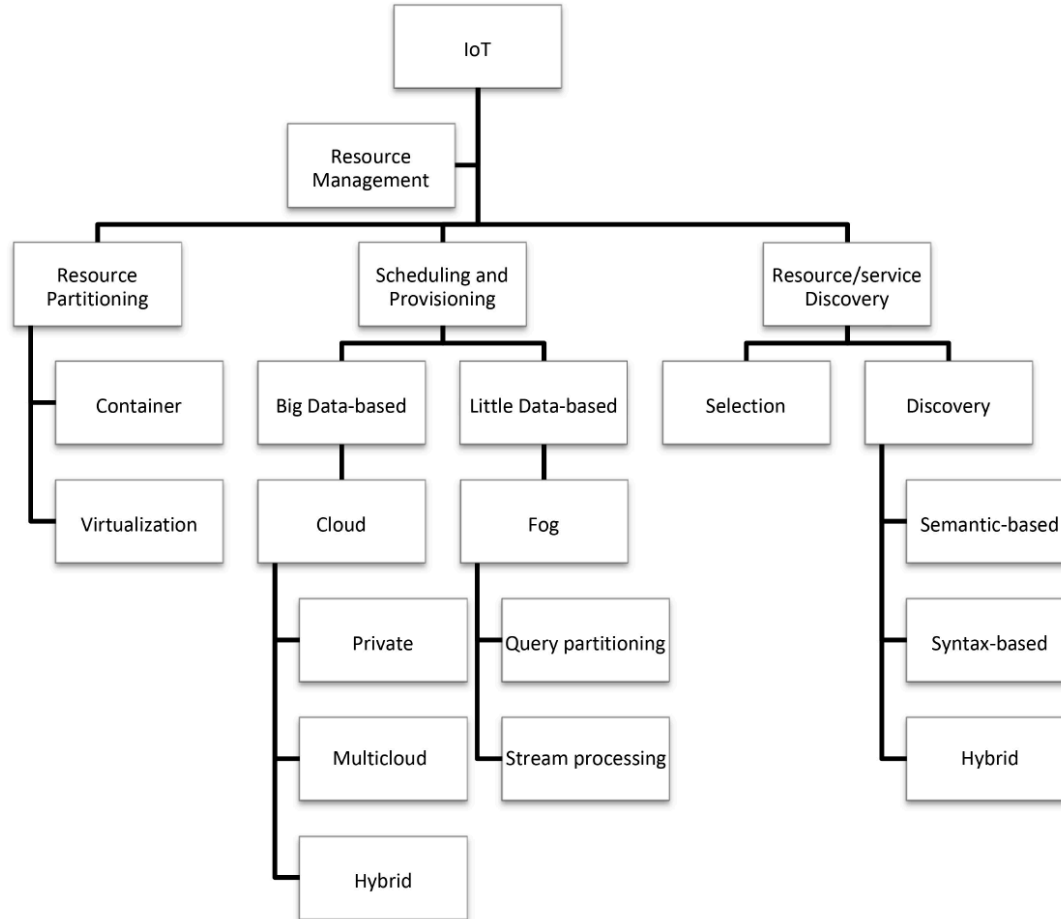


Table 1.1 Cloud Versus Fog

	Fog	Cloud
Response time	Low	High
Availability	Low	High
Security level	Medium to hard	Easy to medium
Service focus	Edge devices	Network/enterprise core services
Cost for each device	Low	High
Dominant architecture	Distributed	Central/distributed
Main content generator—consumer	Smart devices—humans and devices	Humans—end devices