



Mobility in Smart and Connected World

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The Only Constant is Change

Technology Transitions



Mobility / Video



Cloud



New Breed of Apps



Internet of Things



Big Data & Analytics

Changing Role of IT

Growth &
Productivity
Opportunities

New Business
Models

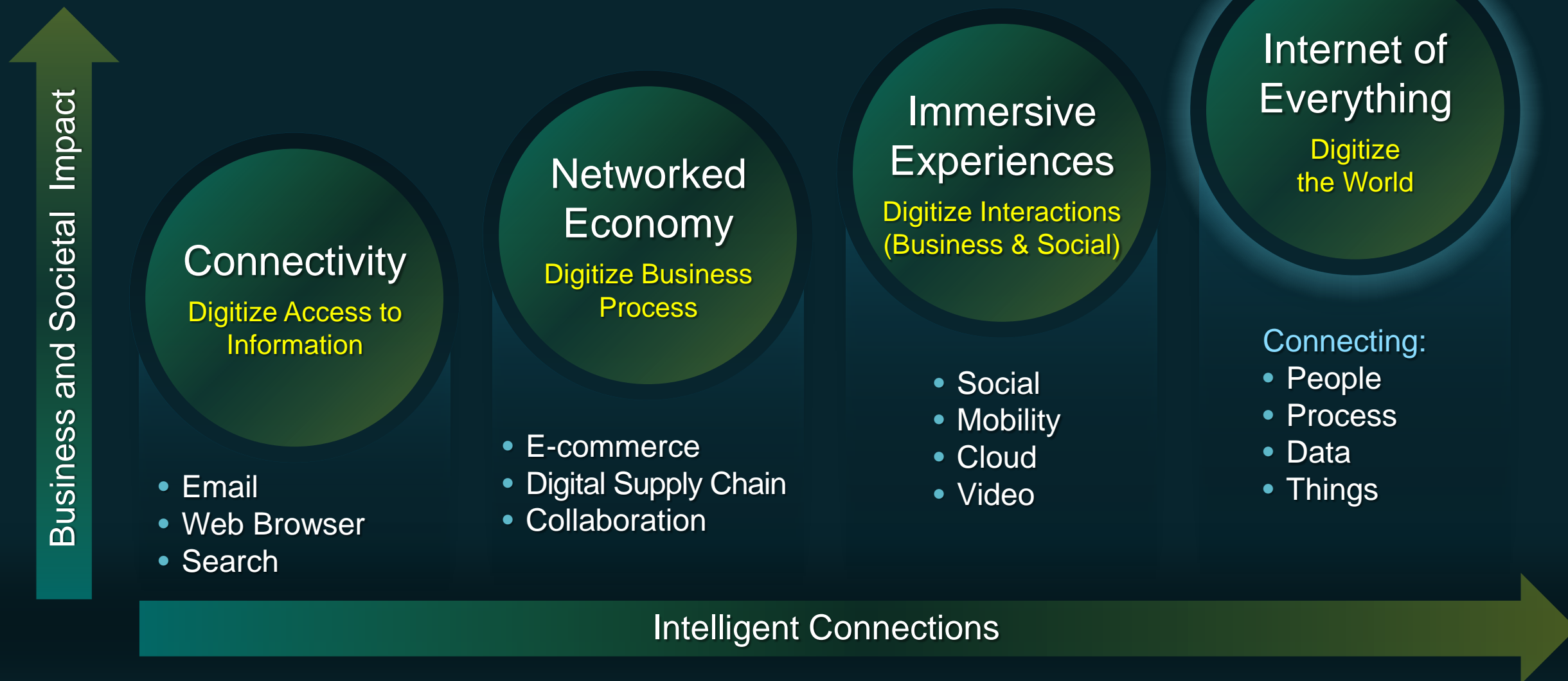
User Experience
& Expectations

Globalization

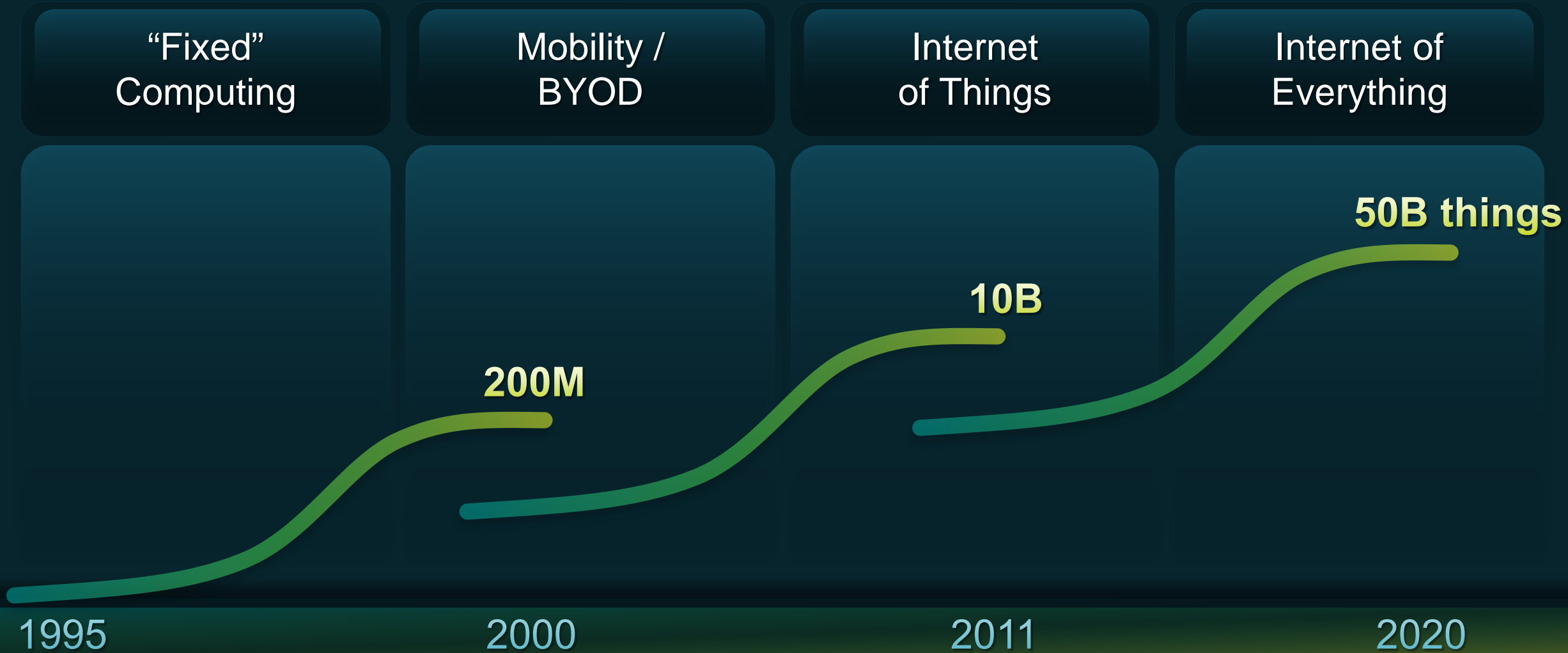
Security &
Regulatory
Compliance

Business Implications

Evolution of the Internet



Internet Growth Occurring in Accelerating Waves



Increasingly Relevant and Valuable Connections

Value of Internet of Everything comes from:

Connections

Availability, comprehensiveness, accuracy, timeliness, relevance, and richness



People, Data, Things

Context awareness, increased processing power, greater sensing abilities

Cisco Pilots Developed Over Last 5+ Years... by 2016

Smart + Connected Communities

- \$1.1T IoT Value at Stake Globally
- Education, Energy, Sports & Entertainment, Safety, Healthcare, Real Estate, Government
- 9 Iconic Projects / 100s of Projects



Connected Energy

- \$670B IoT Value at Stake Globally
- BC Hydro... Vancouver
- 1,700 Poletop Routers
- 1.6M Smart Meters



Connected Industry

- 1.4T IoT Value at Stake Globally
- 13B B-to-B Connections by 2015
- Auto Plant... 50K IP-ready Devices
- Connected Vehicles, Defense, Industrial/M2M, Transportation



Intelligent Networks Transform the Delivery of Citizen Services

Integrated Operations Centre



Citizen Services Menu



Our Iconic S+CC Engagements



Toronto Waterfront



Rio de Janeiro



Barcelona



Lake Nona



Songdo



London



China



Lend Lease
(London and Sydney)



Skolkovo (Moscow)

Smart Work Centers: The Workplace of the Future

Amsterdam



120 Smart Work Centers Today

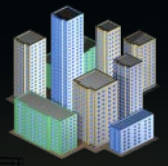


\$13 Mn Savings in Leasing Costs



3428 Tons Reduction in Carbon Emissions

South Korea



450 Smart Work Centers by 2015



\$1.3 Bn Savings in Transit Expenses



1.1 Mn Tons Reduction in Carbon Emissions

Social, Economic and Environmental Components



Mobile

Parking
Individual Work Spaces



Social

Communal / Lounge Areas
Child Day Care. Restaurant
Collaboration Rooms.
Social Programs. Networking



Visual

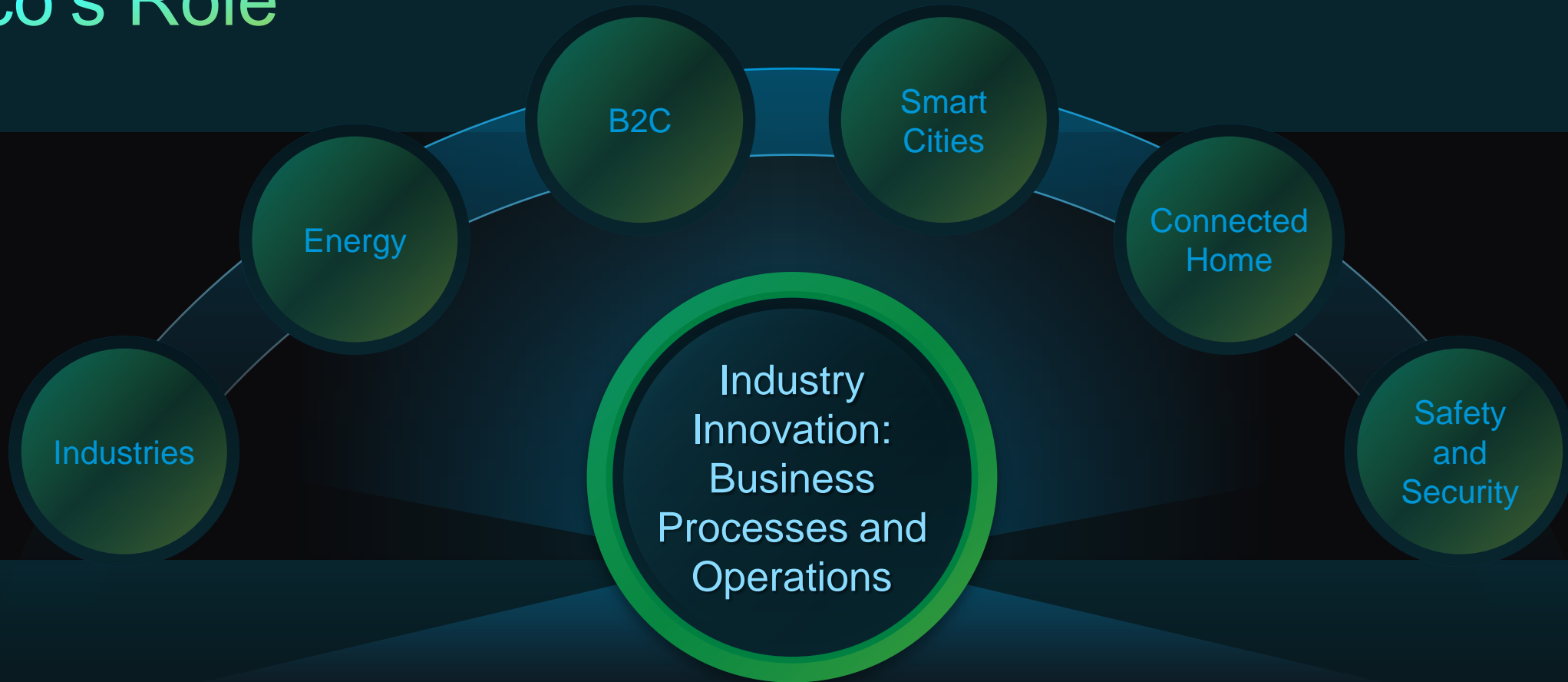
Function Room
Traditional Office Space



Virtual

TelePresence
Virtual Education and
Healthcare Services

Cisco's Role



**Sensors and
Devices**



**Networks and
Protocols**



**Data
Analytics**



**Control
Systems**

Cisco's Role

Industry
Innovation:
Business
Processes and
Operations



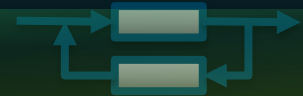
Sensors and
Devices



Networks and
Protocols

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11001
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Data
Analytics



Control
Systems

IoT Connectivity Platform

Cisco's IoT Connectivity Platform

Manage Private and Public Networks

Enable Service Providers' M2M Services

Connect to All Things, Even Unintelligent Ones

Secure the Infrastructure

Compute Data In Motion

The Platform for Partner Ecosystem

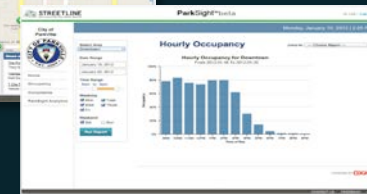
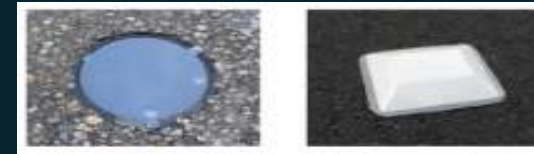
IoT Connectivity Platform

Internet of things for smart cities starts with parking !

Connected City Network and Infrastructure



Parking Sensors and Applications



San Carlos and San Mateo



City of San Mateo, CA

Phase I: 200 sensors in Q4 2012
ParkSight Applications
Guided Enforcement
ParkerMap and Parker mobile



City of San Carlos, CA

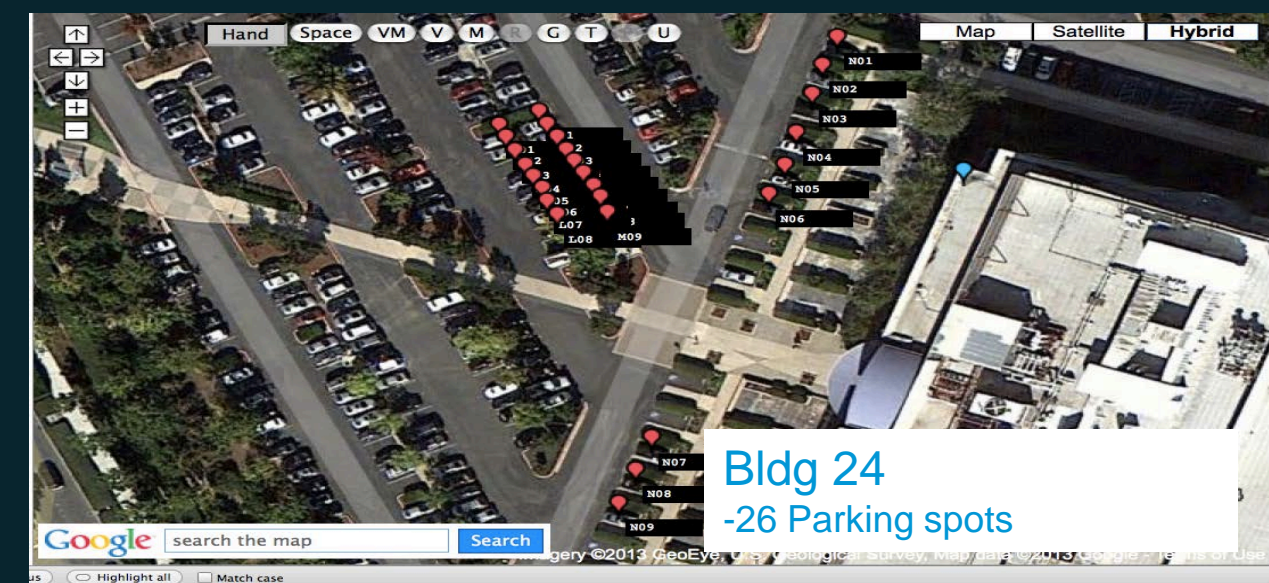
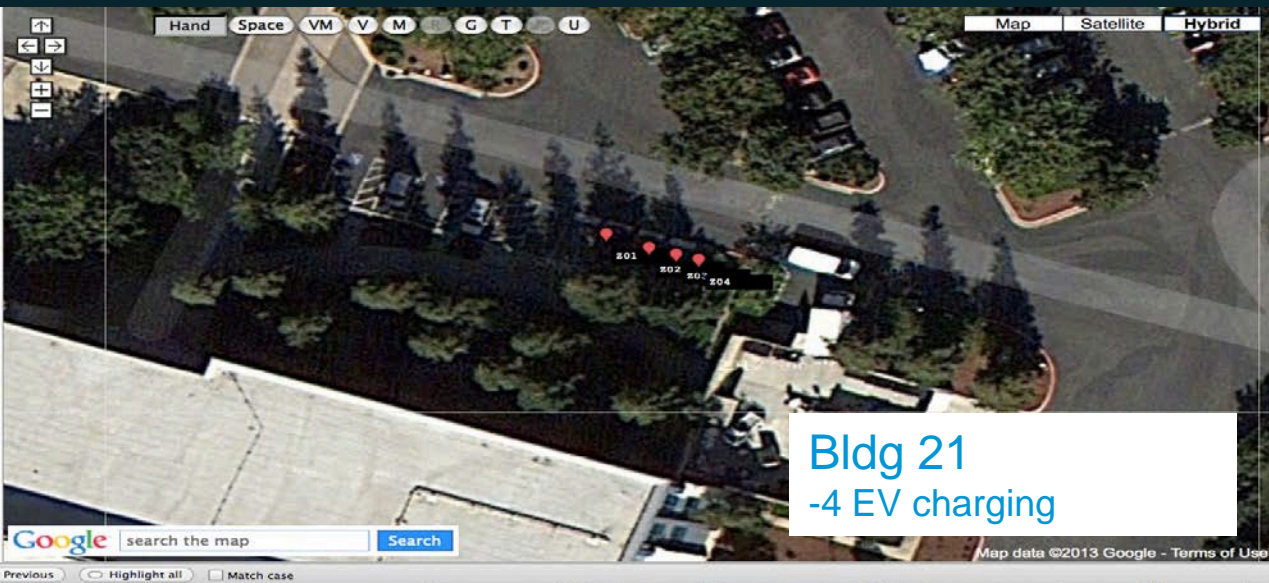
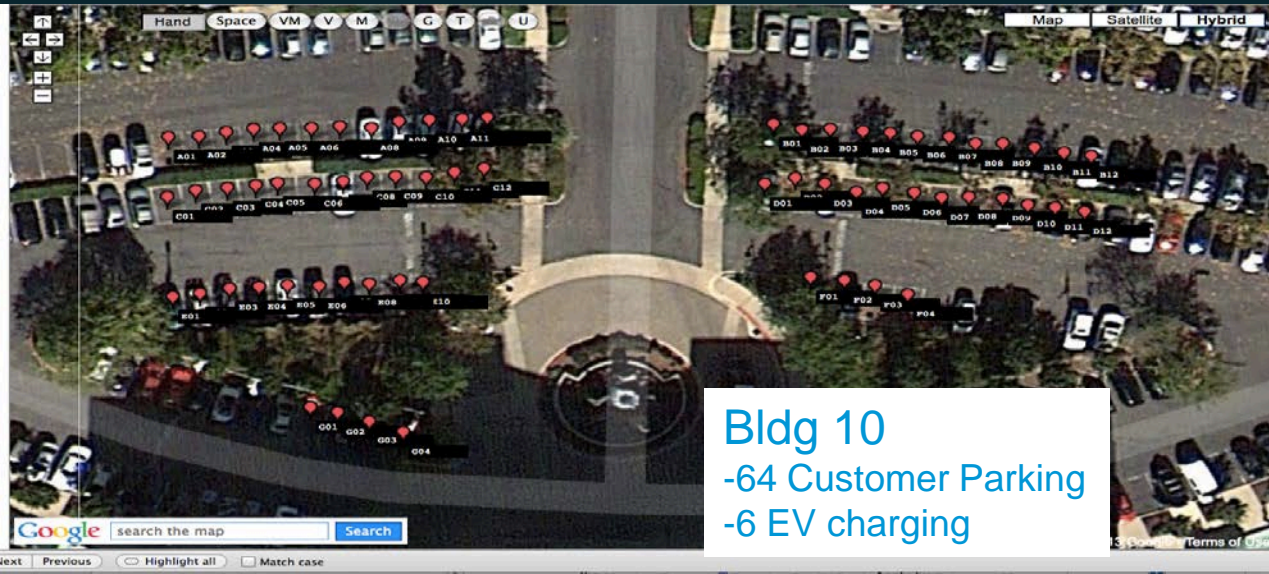
Phase I: 200 sensors in Q4 2012
ParkSight Applications
Guided Enforcement
ParkerMap and Parker mobile
Cisco network integration



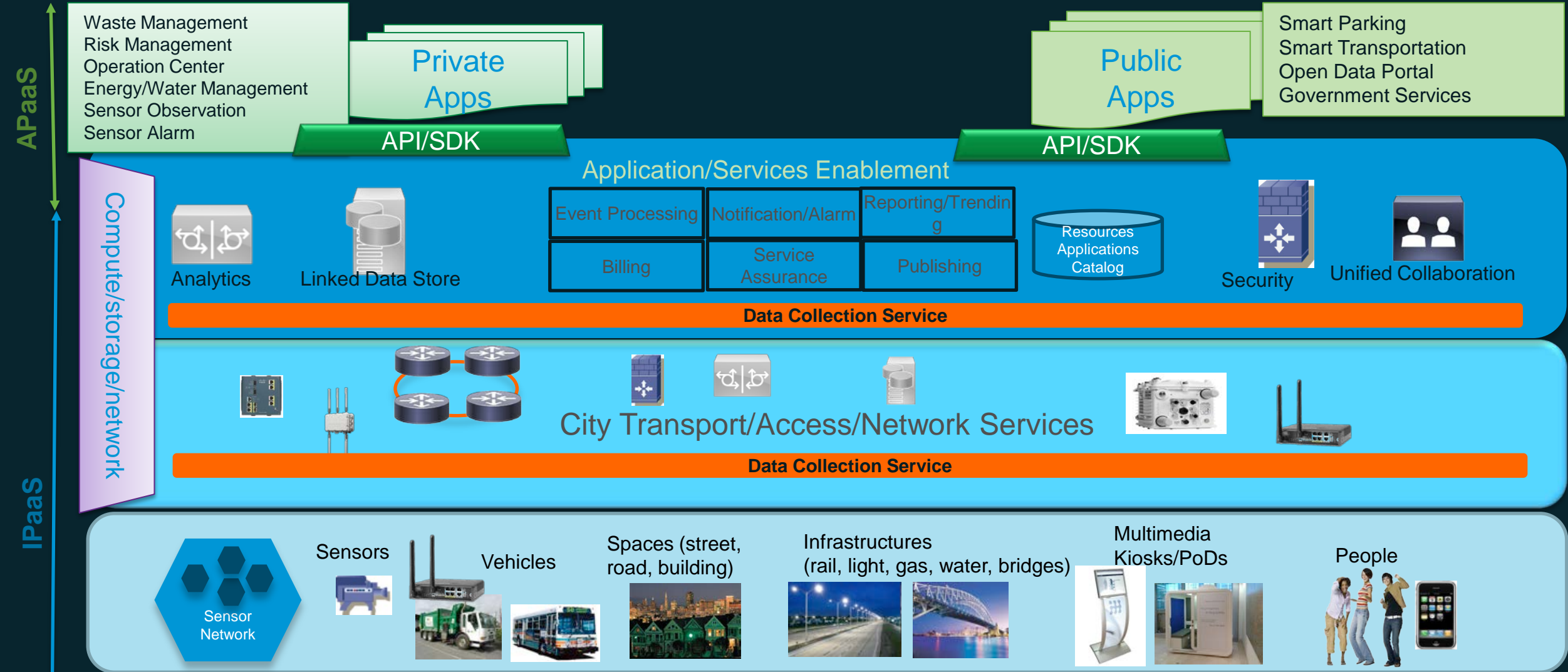
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Cisco San Jose campus



IoE for S+CC: a Multi-Layered Architecture



City of Nice

- **The “Lighthouse City”** : Nice Metropolis joins aspiring global cities as smart city “living lab” – part of its larger initiative to improve overall public life.
- **In the initial phase**, the pilot will take the form of four city services over a specific zone :
 - Smart Parking
 - Smart Lighting
 - Waste Management
 - Environment and Air Monitoring.
- **Real experience** : the PoC to go LIVE in the streets of Nice on the occasion of the “Innovative City Convention” (June 17th 2013)
- Strategic partners include **Urbiotica**, a sensor network provider, and **Think Global** for the **middleware embedded into Cisco 'smart' routers** that act as an overlay open interface between data sources (things, people) and Apps.



- **Nice City** : 5th French city, 2^d national airport
- **Nice Metropolis** : 1st Metropolis of France, 46 towns, 550 000 inhabitants – Christian Estrosi, Mayor of Nice & President of Nice



IOE4Cities : end-to-end solution

Phase 1 : Information collection

Wireless Sensors



Powered Sensors



- The wireless sensors family is provided by Cisco Partner **urbioTica** ; and offers the following benefits:

Adapted to any vertical managed by the platform

Great autonomy (8-10 years)

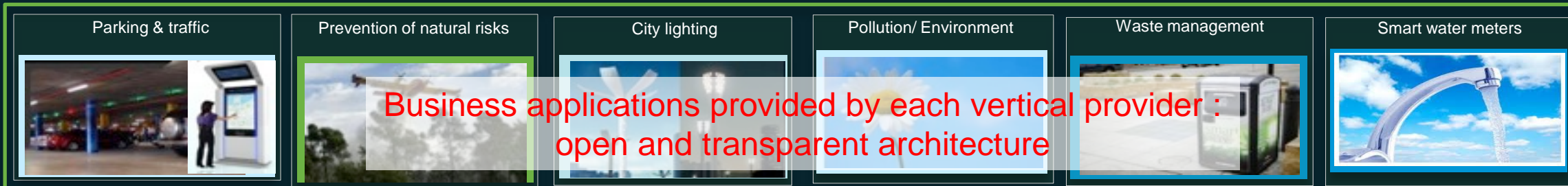
Ergonomic and easy to deploy on the public road network

Low maintenance, as intelligence is positioned at the level of the information system

- Powered sensors require power supply
- They are deployed on the candelabra of the public lighting network
- They can involve multiple types of devices :
 - Public lighting system management
 - Smart cameras
 - Speed radars
 - Speakers
 - Etc ...

IOE4Cities : end-to-end solution

Phase 2 : Information transport & analysis



Serve any kind of application

Data Collection Service provided by
(deployed in diverse "smart" routers)



Communications infrastructure deployed on the street lighting network
(Wireless sensors connectivity, Fiber optic, Mesh WIFI & PLC for Intelligent Urban furniture)

Wireless sensor

Powered sensors

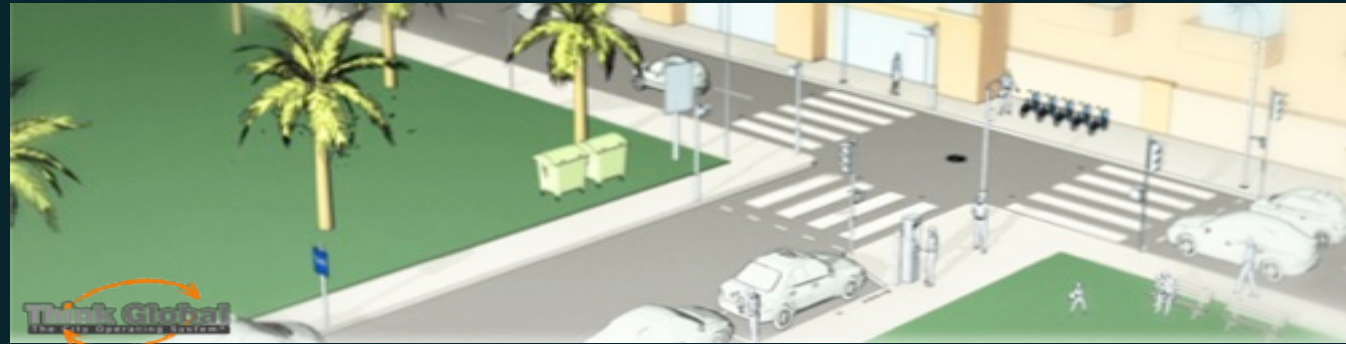
Street Smart Devices

Power Supply: Distribution Network or lighting

IOE4Cities : end-to-end solution

Phase 3 : Information Display

Smart Street Furniture



Smart Citizen Devices



- The solution allows multiple forms of information display
- It adapts to the needs and requirements of each vertical managed by the platform
- Examples of smart street end-points :
 - Multiservice kiosk (parking, public info...)
 - Payment end-point
 - Car electric Charge (fast, semi fast, slow)
 - City digital signage
 - Road digital signage

- The solution is completed with a series of smart phone apps and citizen services
- Some provided by **Think Global** (EzPark displays real time information of traffic, environmental quality, parking spots availability ... - EzMove suggests public transports)
- Some provided by the local eco-system (open innovation) : any start up can apply for a specific use of the platform and create its own service, eg, promotional coupons, social traffic network...

How Can We Enable... ...the creation of a new industry

**Visionary
Leadership**



**Global Open
Standards**



**Smart
Regulation**



**Public Private
Partnerships**



& People

New Ecosystem



Thank you.



Amazing Things Happen When You Connect the Unconnected

99%

*of the World is Still
Not Connected*

