



Cisco Connected Real Estate **Lead the Experience**

Can Habib

Vertical Sales Manager
Central & Eastern Europe

Trends Shaping the Future of Buildings

1

Population Growth

Doubled in 2nd Half of Last Century; Will Reach 10B in 2050

2

Urbanization

Quadrupled in 2nd Half of 20th Century; 60% of Population Lives in Cities by 2030

3

Infrastructure Advances

Broadband and Internet Fastest Growing Infrastructures Ever Introduced

4

Transformation Of Organizations

Automated > Enabled > Networked > Networked Virtual Organizations

5

Asset Utilization

60% of Space Is Wasted

6

Energy Consumption And Environmental Impact

Buildings Consume 50% of World's Energy; 90% of World's Electricity

7

Productivity of the Real Estate and Construction Economy

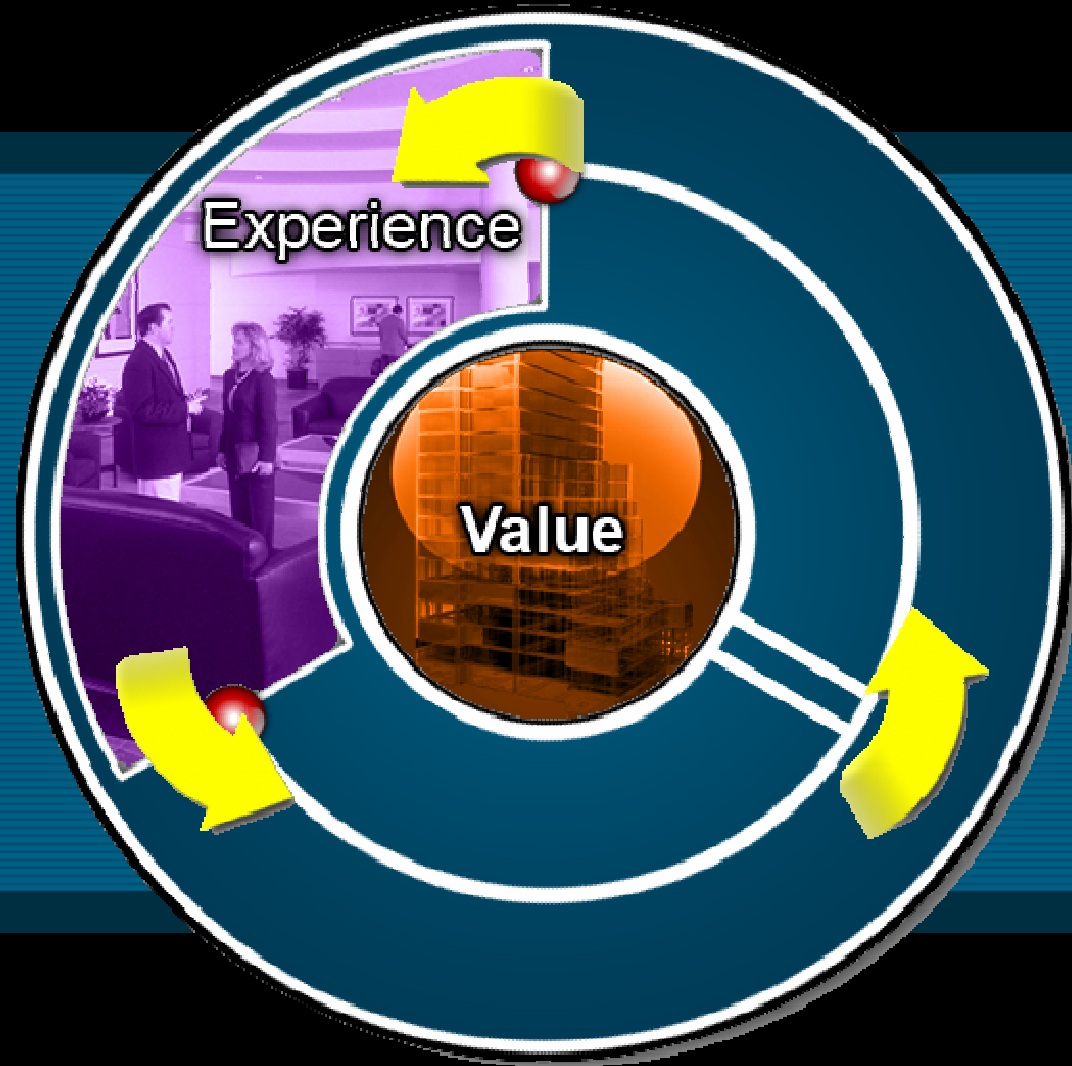


Change the Way we Design, Build, Operate, and Use Real Estate

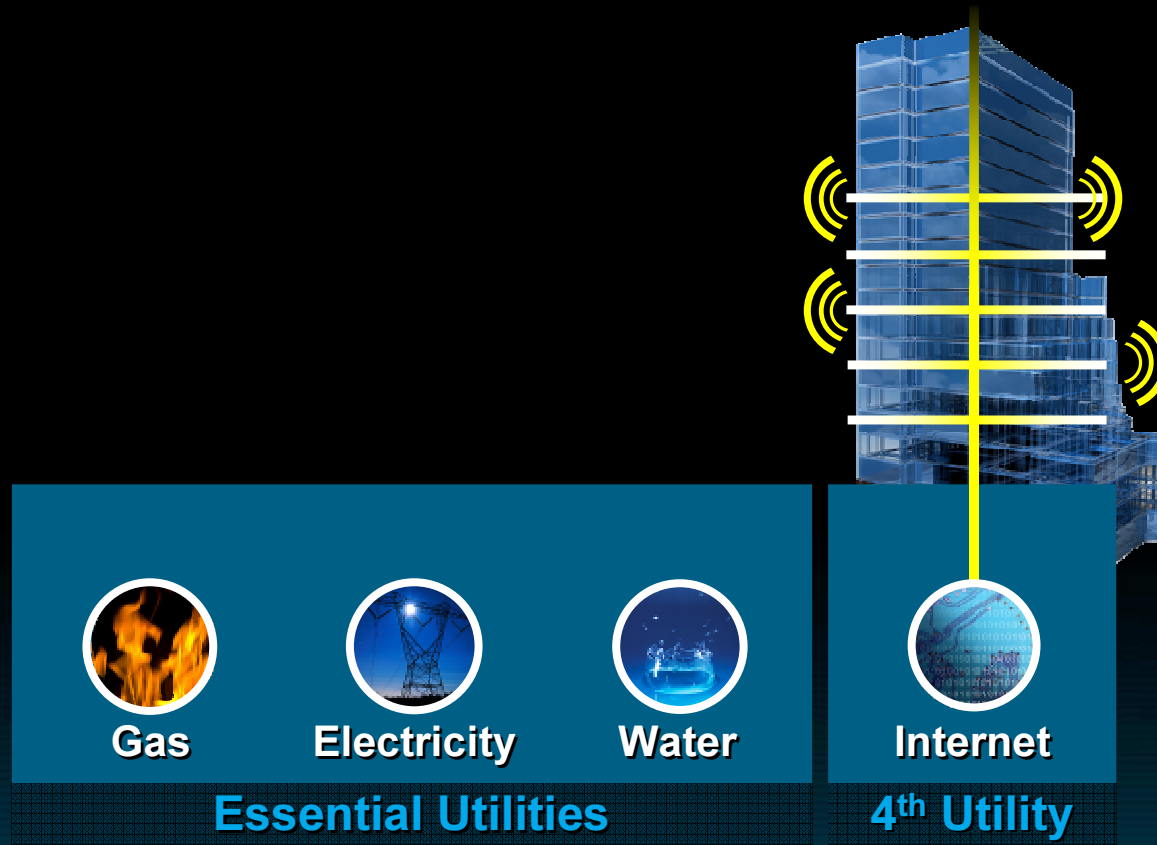
Creating Value

Creating Value for Business and Real Estate Owners

- Building experience
- Simple interaction
- Brand attraction
- revenue
- Media reach
- Support business

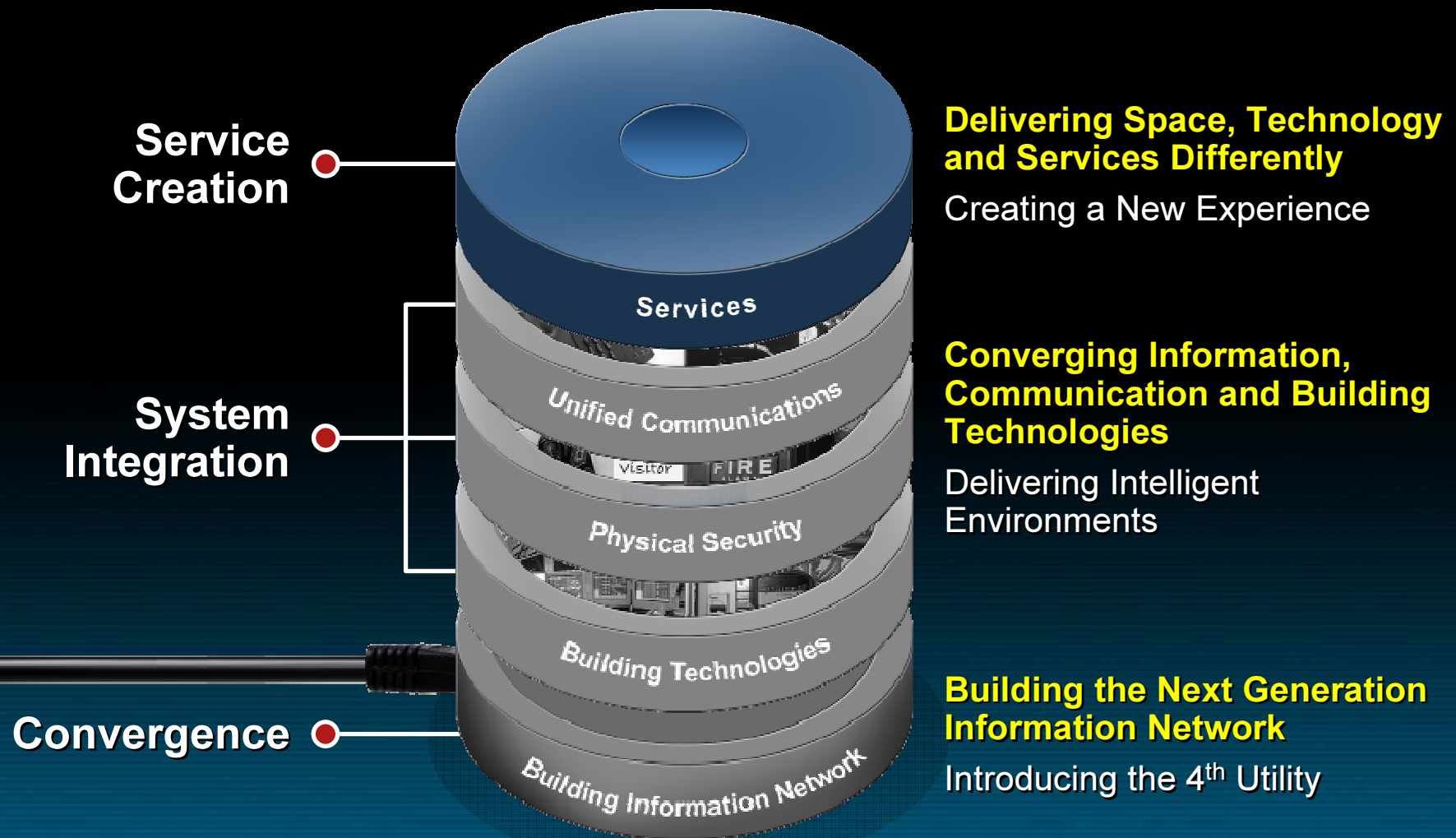


Convergence: Introducing the 4th Utility

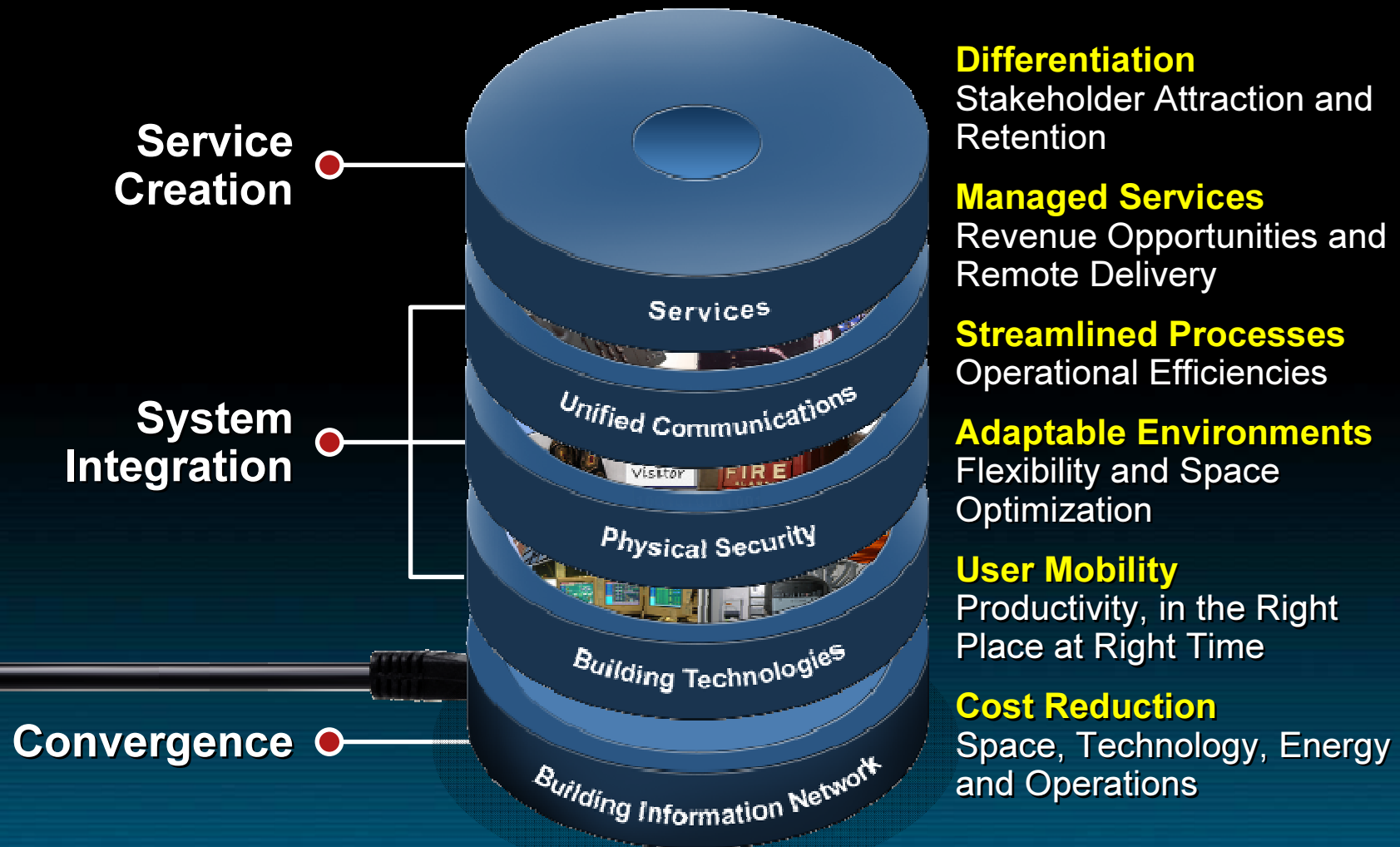


**Reduce Cost and Complexity by
Replacing Disparate Networks with One
Simplified, Flexible, and Scalable IP Network**

Framework for Connected Real Estate



Creating Value with Connected Real Estate



Raising User Experience and Effectiveness

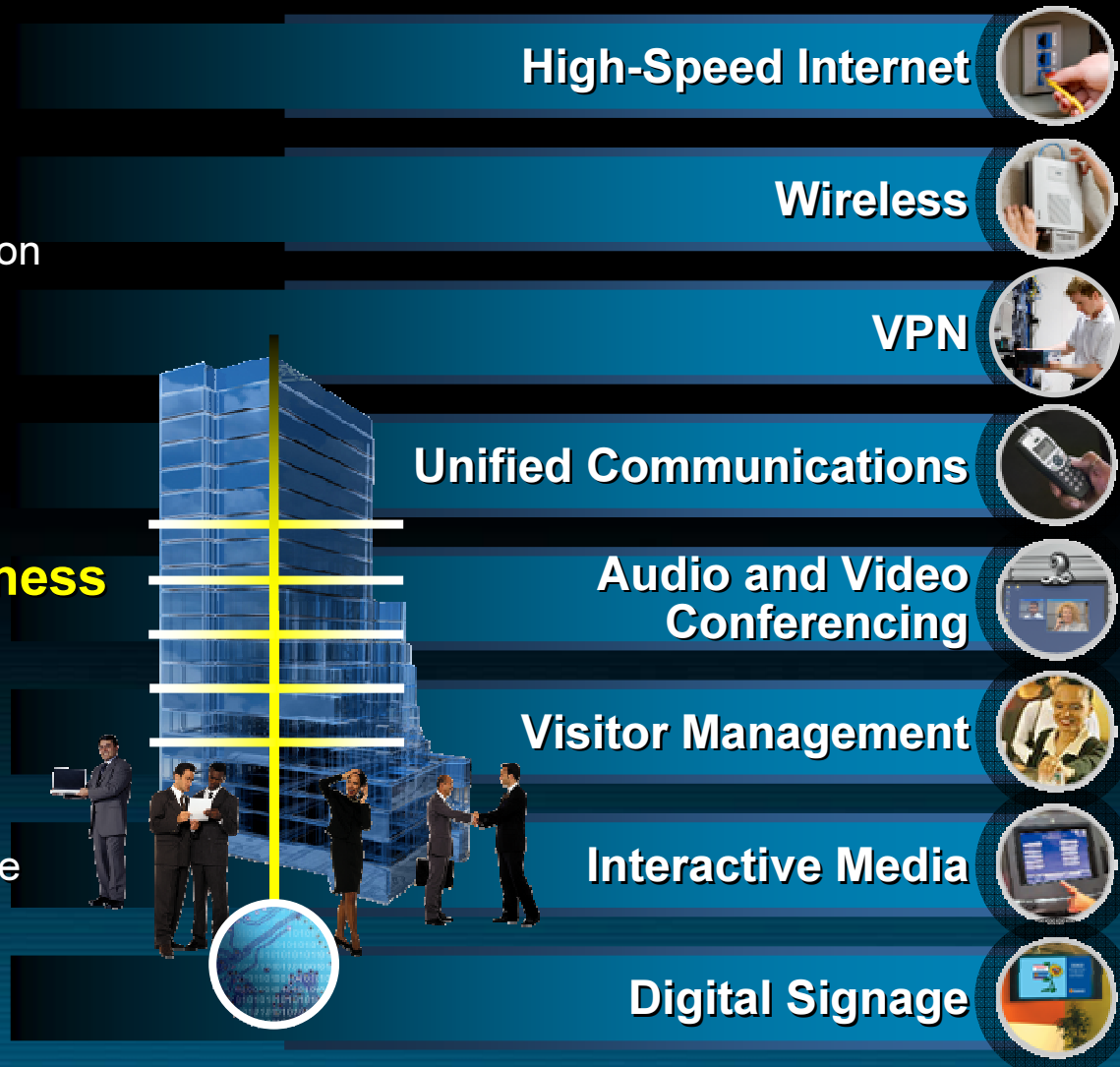
Benefits:

User Effectiveness

- Collaboration and interaction
- Mobile Connectivity
- Experience and attraction
- Productivity

Real Estate Effectiveness

- Improved space utilization
- Simplified management
- Reduced costs
- Increased services revenue



Services and Technologies

Raising Building Performance and Value

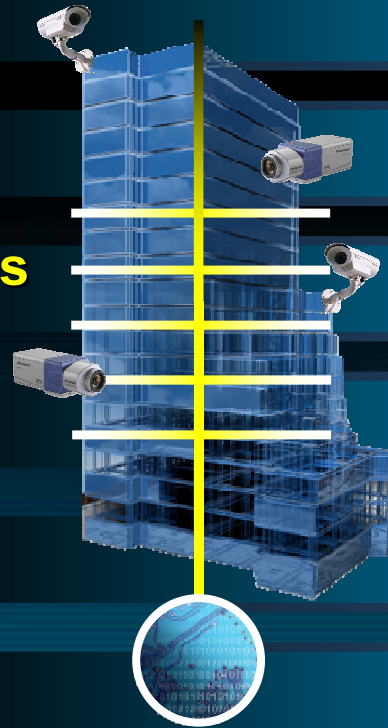
Benefits:

Building Performance

- Safety and security
- Environmental sustainability
- Occupant comfort
- Organizational flexibility

Real Estate Effectiveness

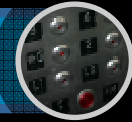
- Reduced costs
- Energy savings
- Managed services
- **Competitive** advantage



Lighting



Elevator



24 / 7 Monitor



HVAC



Fire



Video Surveillance



Access

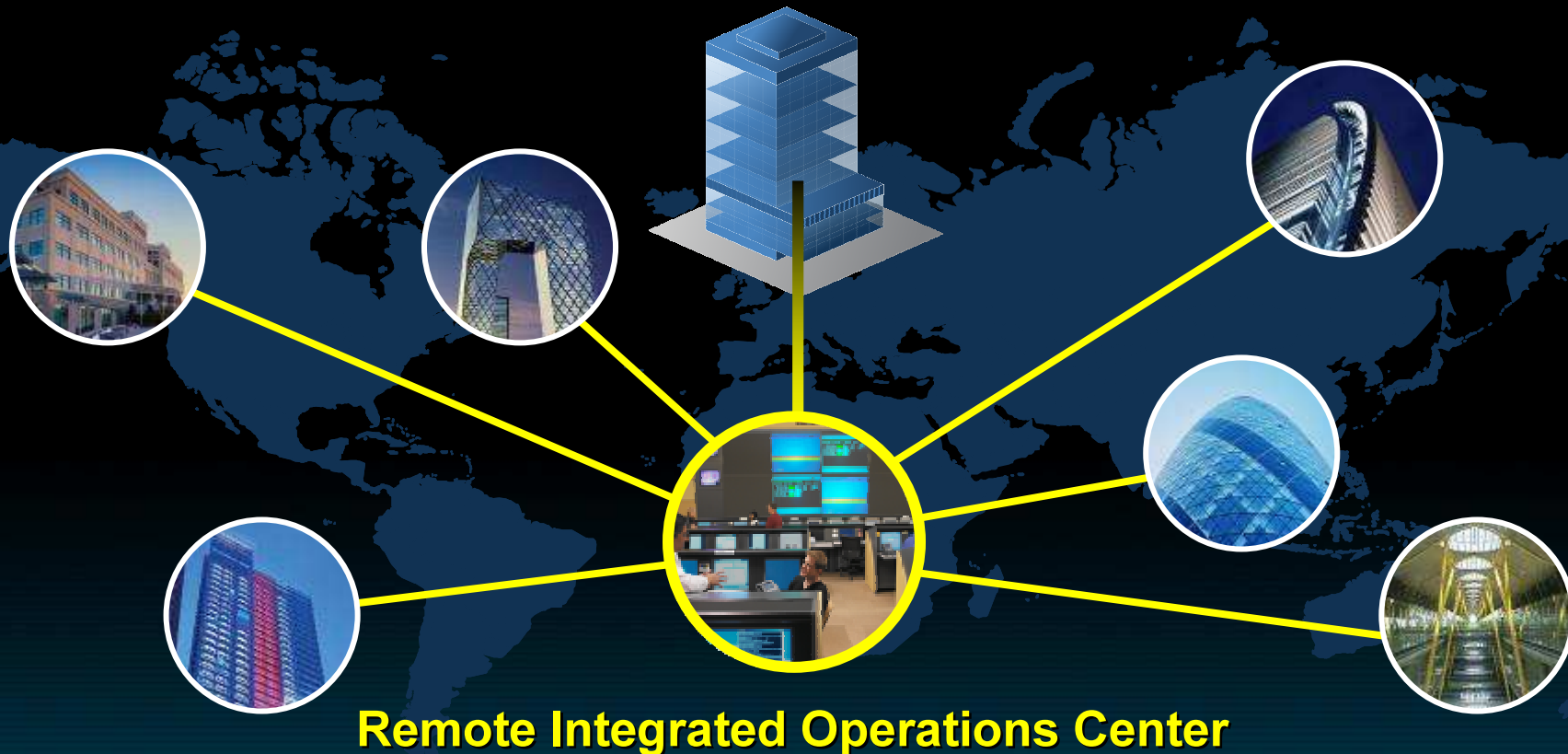


Energy



Services and Technologies

Unlocking the Power of the Network



**Economy of Scale Benefits Through Connecting
the Buildings in Your Portfolio to
One Remote Integrated Operations Center**

Service Oriented Building Architecture



Disaster Recovery Local Information Concierge Personalized Content
VoD Executive Security Services IPTV Wireless Video Conferencing

Service Creation

Create Correlations Between Processes to Create Services



Content Management Maintenance Renovation and Upgrades

Systems Integration

Create an Information Sharing Platform Between Systems



BAS Safety Cabling Asset Management A/V

Converged Network

Industry Standard Communication Backbone



Lights Fire Alarm CAD Access Control Cameras
HVAC RFID Elevators Voice Communication

How Do You Enable Collaboration and Boost Efficiency and Effectiveness?

Content / Applications



Experience

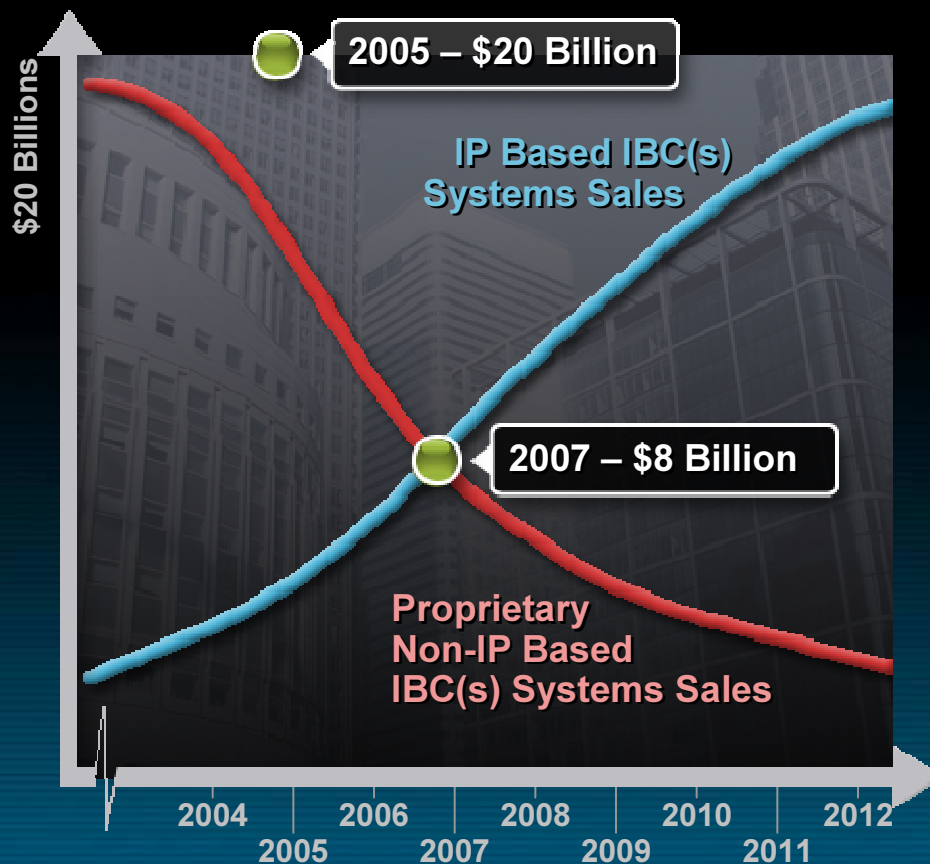


Devices

Building Automation Industry Is Catching Up

Forecast World Growth of Intelligent Building Control Systems and Penetration of IP-Based Solutions

Total IBC(s) World Sales – Approx. 6.5% Growth



Source: i&I Report, 2005

Presentation_ID

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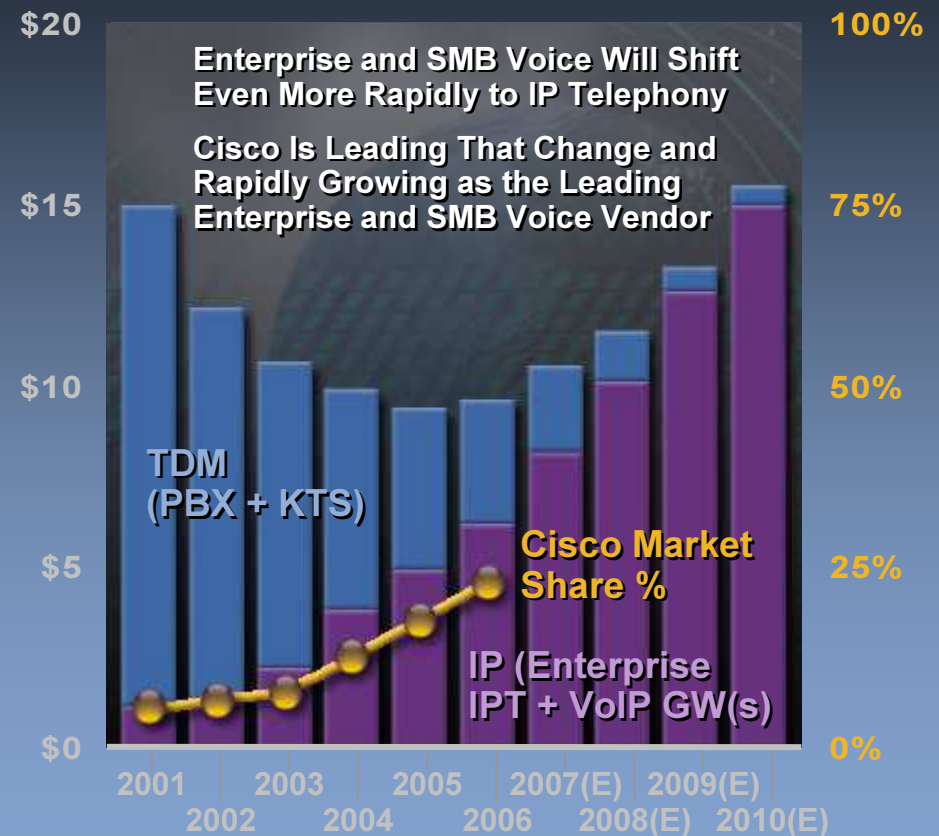
Cisco Confidential

The Shift IP Will Accelerate: Worldwide Enterprise Voice Market – Revenue

WW Enterprise Voice Market

Total Revenue (\$B)

Cisco Market Share



Source: xxxxx / Research

Value Propositions



**New Ways
of Working**



**Creating
New Revenue /
Experiences**



**Protecting
Your Assets**



**Reducing
Total Cost of
Ownership**



**Increasing
Shareholder
Value**



**Addressing
Sustainability**

New Ways of Working

- Information for people
- Whenever and wherever they want it
- Collaborative vs. individual space
- Reduced better space requirements
- Workforce productivity
- Increased user satisfaction
- Lower real estate costs
- Improved real estate values



Creating New Revenue / Experiences

- Enhance the user experience
 - Tenant, guest, user attraction
- Digital signage
 - Advertising, intelligent evacuation
- Managed services
 - IP telephony, high speed internet, metered utilities, wireless, VPN, online collaboration
- Remote campus management
- Higher rents for “intelligent” buildings



Protecting the Assets

- The assets
 - People, knowledge, equipment, facilities, etc.
- Centralised operations
 - Remote digital management centre
- IP-enabled CCTV
 - Video surveillance, digital recording
- Access control
 - Visitor management, intruder alarm
- Security responses
 - Corporate not personal, + automated
- Deterrent
 - Crime, vandalism, anti social behaviour



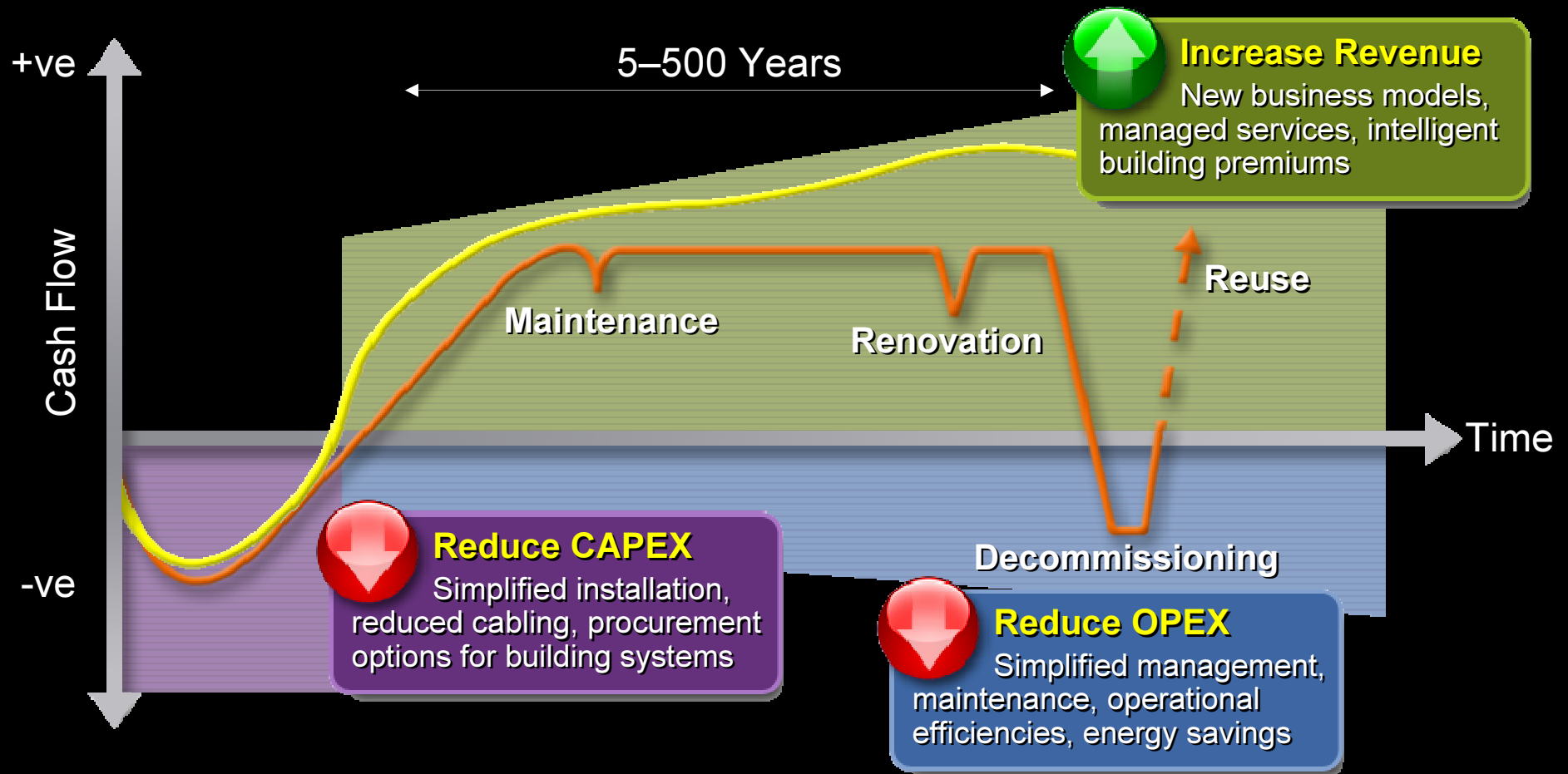
Reduced Total Cost of Ownership

- Simplified flexible design
- Reduced cabling co-ordination
- Simplified installation – push fit
- Improved commissioning – non manual
- Operation deskilled for human beings
- Performance based maintenance
- Avoidance of proprietary lock-ins
- Centralised, unified operations

Managed services



Changing the TCO



Design and Construction

Operations

Saving on CAPEX with Connected Real Estate

- **Cabling and cable pathways**
One cabling infrastructure versus eight or more
- **Labor**
Reduced complexity, simplified installation
- **Equipment**
Low-cost alternatives, non-proprietary
Single device to service multiple applications (e.g multi functional sensors)
- **Project management**
Savings on design and implementation
- **Consolidation of servers for the systems**
Less hardware, less space, and reductions in software licenses
- **Reduced training of personnel**
For standardized system management tools and platforms
- **System configuration**
Less time to configure due to shared standardized databases
- **Wireless**
- **PoE (Power over Ethernet)**
Limited need for separate electrical cabling



Examples

CAPEX Cost Savings Due to Convergence

Barbizon 63 New York City

14%

- Building mgmt system
- Access controls
- Video surveillance
- A/V intercom
- Telephony and wireless



One America Plaza San Diego

8.6%

- Camera system
- Card access
- Parking with validation
- HVAC
- Automation software



The Shires Leicester, UK

15%

- Electronic systems
- Integrated triple play
- Building integration
- Structure cabling
- Interoperable systems



Annual Cost Savings of Integrated Systems

Svc Contracts, Additions, Remodeling	32% Less
Energy Cost Savings	\$0.16 per SF
Improved Load Factor, Coordinate Supply	10% Less
Maintenance, Repair and Replacement	\$0.20 per SF
Savings Related to "Productivity"	\$0.39 per SF
Staff Training, Efficiency, IT Support	82% Less
Cable and Cable Pathways, MAC	39% Less

Adapted from: National Institute of Standards and Technology, 2004

Examples

OPEX Cost Savings Due to Convergence

Energy Fairmont Hotels

34%

- Electricity saving
- Integration of:
 - Light
 - HVAC
 - Access



Maintenance Pfizer UK

15%

- Annual maintenance
- Integration of:
 - 70,000 building point
 - Centralized ops
 - Unified control system



Operations Cisco Systems

30%

- CCTV over IP
- Centralized control
- Intrusion detection
- Temp, leak detection
- Monitoring



Increasing Stakeholder Value

- Enhancing real estate asset value
- Increased revenue opportunities
- Reduced total cost of ownership
- Enhanced productivity / SF
- Increased net operating income
- Would you want a “Dumb” building
- “Intelligent” image

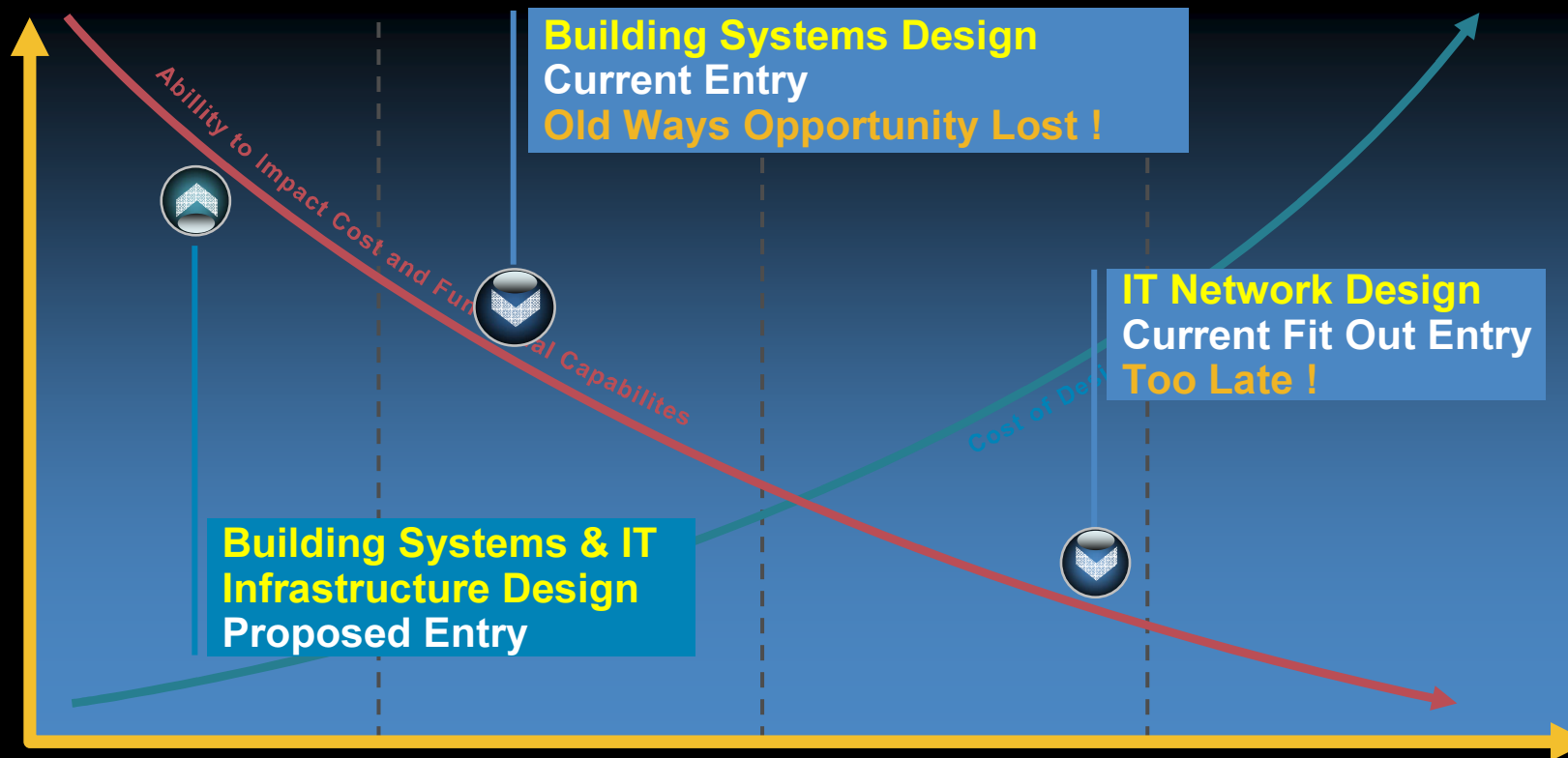


Addressing Sustainability

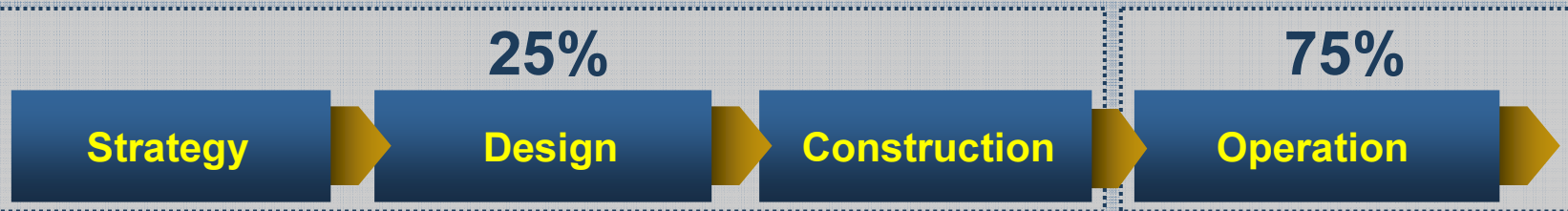
- Utilising natural resources
 - Daylight harvesting, solar energy
- Energy visibility, management, and allocation
- Smart renewables
- Reduced energy consumption
- Less building materials
 - Reduced cabling, wireless
- Less space
- Reduced demand on natural resources
 - Facilitating a more mobile workforce



IT Infrastructure a Key Part of RE Strategy



Lifecyle
cost



Examples



Case Study: Ballantyne Village, Charlotte, USA



Situation

- Mixed use (residential, hotel, office, retail)
- US \$200M, 850K SF
- Cutting edge, property differentiation

Solution

- Managed services
- Unified Communications (to owner and all tenants)
- Value-added IP Solutions (Muzak, Scentair, etc)

Benefits

- Operational savings (\$0.50 / SF)
- Cost avoidance (\$1 - \$2 / SF)
- New hard revenue (\$3 / SF)

Case Study: One America Plaza, San Diego, USA



Situation

- 570K SF office building
- Building value: \$300 per SF
- Need to differentiate in tight market

Solution

- IP network as fourth utility
- Integration with card access and camera system
- Parking system, HVAC, automation software

Benefits

- CAPEX saving of \$0.20 per SF
- Operational saving of \$0.71 per SF per year
- Cash flow + \$0.70 per SF per year

Case Study: Hotel 1000, Seattle, Washington



Situation

- 120 guest rooms, 47 condo units
- Guest attraction
- Differentiation
- Innovation

Solution

- Touch screen IP phones, and applications
- Wireless and Wired High speed Internet
- Wireless IP phones for staff
- Building systems integration

Benefits

- Improved Loyalty program options
- Operational Efficiencies
- Delivering new experience: digital signage, IPTV, Unified Communications

Case Study: Allianz Arena, Munich, Germany



Situation

- €340M; 69,901 seats
- 6,000+ data ports
- OPEX reduction

Solution

- Converged network (99.999% uptime)
- ePayment, Access, CCTV, automation
- Interactive services (e.g. Fan TV)

Benefits

- Safe, convenient, intelligent
- Cost reduction
- Offering world-class services

Case Study: Workplace Effectiveness at Cisco



Situation

- 48,000+ employees
- 16M+ SF, 392 location, 75+ countries
- Productivity, workforce effectiveness

Solution

- Re-designed office space to accommodate productivity
- Unified communications, wireless
- Video conferencing, web-enabled tools

Benefits

- Less 50% CAPEX cable and IT infrastructure
- Less 40% per headcount
- Return on the investment < 3 years

Case Study: Pfizer Campus, Sandwich, UK



Situation

- 70 building campus with 4M SF
- Various operating systems and infrastructures
- Need for cost savings

Solution

- Single converged IP network
- Converging HVAC controls with IT network
- Integration with 70,000+ automation points

Benefits

- Improved ROI from corporate IT network
- Estimated GBP 6M savings (5%) on energy
- Estimated 15% savings of management

Case Study: State Audit Bureau – Kuwait



Situation

- Headquarter, 1,200 personnel
- 10,000 m2 HQ building, 11,500 m2 Car Park
- Want to be showcase in the Middle East

Solution

- Converged IP Network
- Integration building automation
- A platform for employee **collaboration**

Benefits

- Increase **productivity**
- Save **energy**
- Ensure **security**

Case Study: Converged Environment Safety Security



Situation

- 392 buildings in global portfolio
- 6,500+ card readers, 2,750+ cameras
- Redundancy of facilities and security cost

Solution

- Centralized video surveillance
- Access control and Monitoring over IP
- Consolidated administration and maintenance

Benefits

- Reduced cost of ownership
- US\$ 10M annual savings (30%)
- Enhanced business continuity (reduced risk)

Case Study: Shanghai Knowledge and Innovation Community (KIC), China



Situation

- 84 hectare, mixed use
- Themes: village, plaza, tech park, stadium
- Vision: “Community = Experience”

Solution

- Advisory, partnerships
- Business model: from space to services
- Core, Advanced, Emerging Technologies

Benefits

- Leading city development in China
- Leverage on strong brand equity
- CAPEX and OPEX impact

Case Study: Boston Properties, Boston, USA



Situation

- 126 properties in North East USA
- 44.2M SF Real Estate Investment Trust (REIT)
- Need to leverage corporate IT investment

Solution

- End-to-end Cisco solution
- Centralized operations center
- IP telephony and wireless (internal)

Benefits

- 24 / 7 operation center
- 30% reduction on 50K work orders per year
- Estimated energy reduction of 15%

Case Study: Barbizon 63, New York City, USA

BPG Properties, Ltd.

Situation

- Retrofit: from hotel to luxury condominiums
- Cater to young, savvy owners
- Differentiation in NYC residential market

Solution

- IP as the fourth utility
- Unified Communications
- HVAC, Access, CCTV, AV / intercom

Benefits

- New value added services through IP phone
- CAPEX reduction of 14%
- Instant, 100% occupancy

