



Smart Hospital Blueprint

Supporting the hospital of the future

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Healthcare Trends

Rising Care Costs

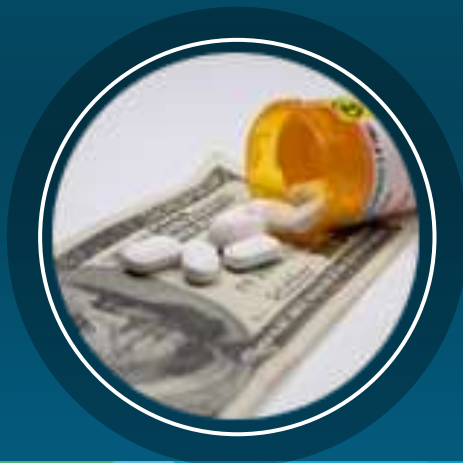
- Staffing shortages
- Ecosystem interoperability
- Lack of proper IT support
- Inefficient processes in the hospital

Access to care

- Specialists and GPs distribution
- Underserved areas
- Lack of Interoperability
- Mobility not well supported

Quality and Care Delivery

- Patient expect higher quality
- Growing patient consumerism
- Lack of standard tools and single patient view
- Missing Decision support at point of care



Hospital Systems

Providing proper network support

CLINICAL SYSTEMS

- EMR
- Patient registration
- Physician Order system
- Patient Tracking and Monitoring
- Emergency e-monitoring
- Caregiver search
- RIS
- PACS
- Telemedicine/ Tele Care
- Robotic Surgery
- Online operating room
- Lab management system
- Pharmacy Management system
- Excellence center
- Ambulance management
- IHE middleware

STAFF EFFICIENCY

- Hospital Portals & Learning Systems
- Communication & Collaboration
- Video Conference and Telephony
- Workflow Management

INTELLIGENT BUILDING

- Video Surveillance
- Intelligent System
- Access management

BEDSIDE SERVICES

- Patient portal
- Internet access
- Digital Signage

BACK OFFICE & HOSPITAL EFFICIENCY

- Device Tracking.
- Paying system
- E-procurement
- Contact Center
- External portal

Bedside terminal is connected

For the Patient...



Easy to use touchscreen



Digital video on-demand



Enhanced care experience



Electronic meal ordering

For Doctor...



Test Ordering & Results Display



Electronic Patient Records



Drug & Patient Barcoding ID



Vital Signs Data Entry Screen

For Administration

...



Compact & State of the Art



Reduce Clinical Risk



Enhance HIS Intelligence



Rapid Return on Investment

“Intelligent Buildings”: a new approach

Collaboration Services

High-Speed Internet

Wireless

Mobility –
Remote Access

Unified Communications

Audio and Video Conferencing

Telepresence

Interactive Media

Digital Signage

Automation Services

Lighting

Elevators

RFID – Tracking

HVAC – Sensors

Fire

Video Surveillance

Access

BAS – Energy

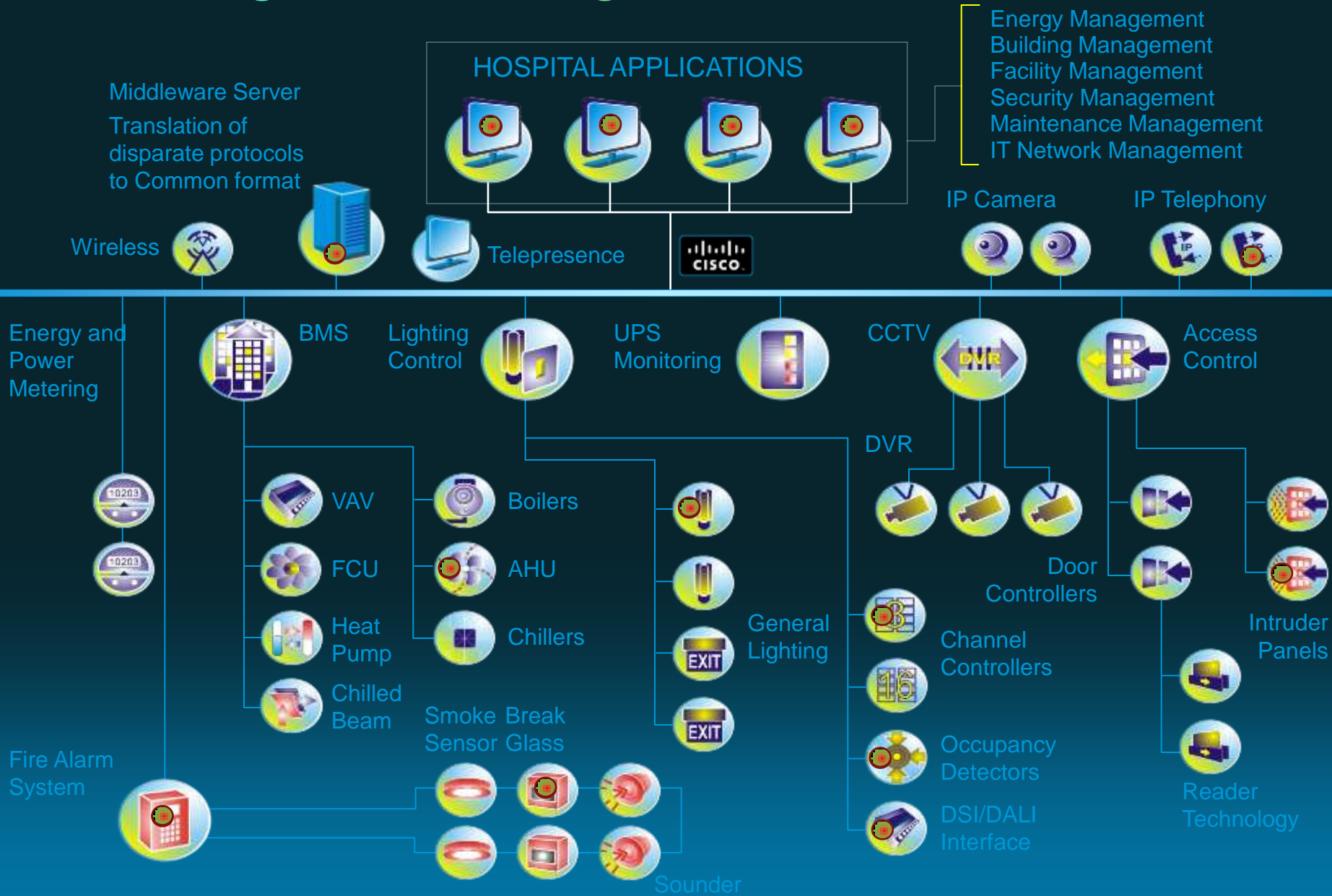
Buildings are today responsible for:

- 62.5% of total electricity consumption
- 30% of total Greenhouse Gas produced

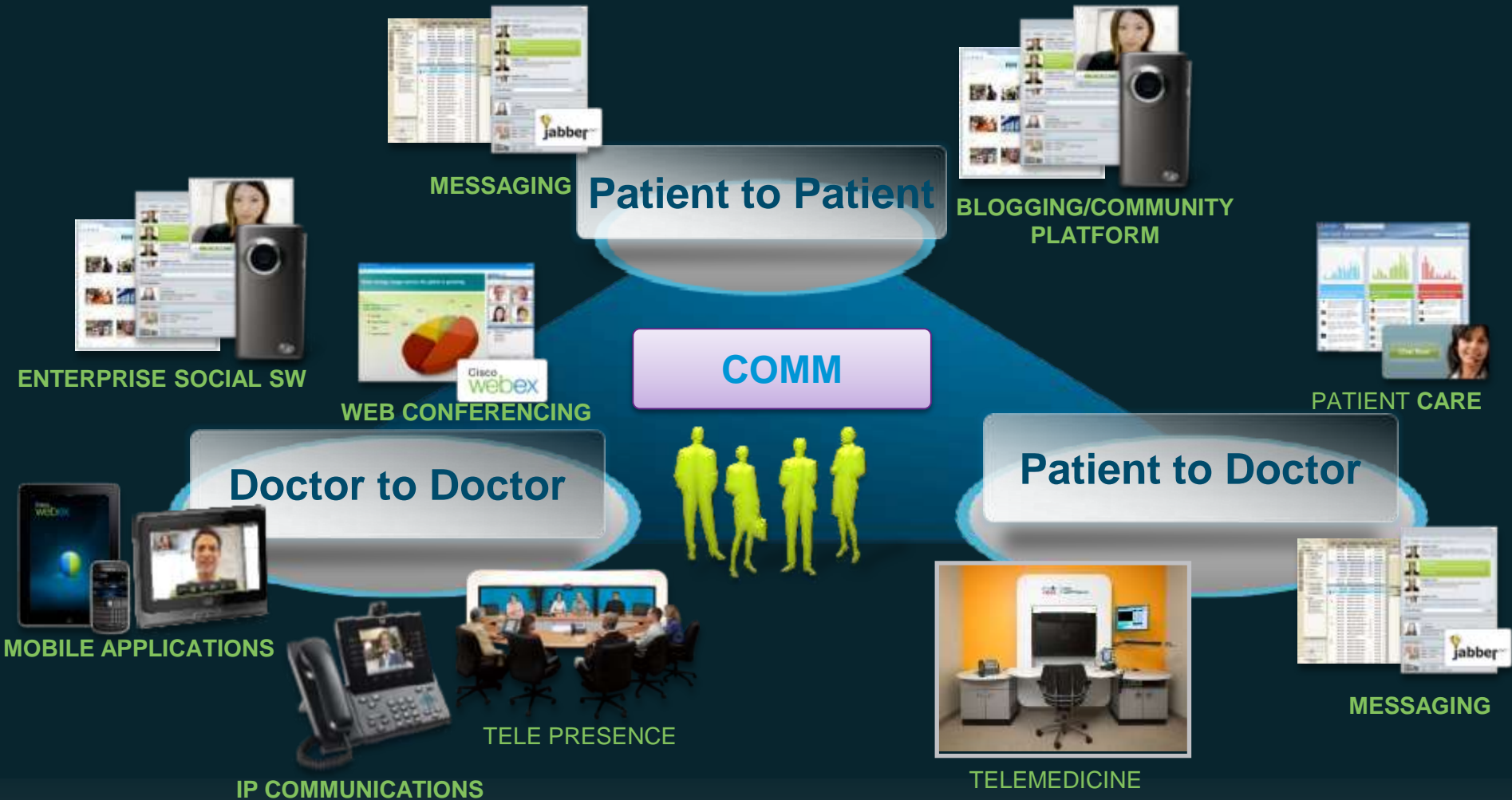
Benefits of “Intelligent” approach

- ✓ Electric consumption reduction
- ✓ Decrease of energy needs
- ✓ GHG reduction

Converged Building Solution



Powering Collaboration in Healthcare



Network Service: EnergyWise

Optimize Energy Usage of hospital, Clinics, Devices

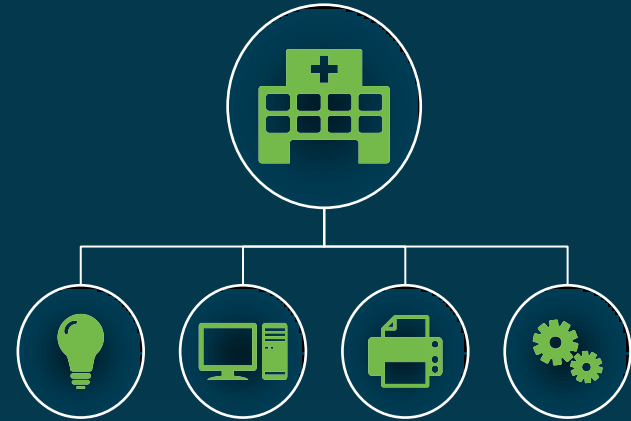


ON



OFF

All devices set to automatically turn off after business hours



Solution Description

- Visibility and Control for PoE and PC Devices
- Open SDK/API to Third Party Devices
- Network Building Controller and Building Management Systems

Features/Benefits

- Low Energy Cost
- Increased sustainability
- Comply with regulatory directives
- Reduce GhG emissions

Product/Technology

- Integration Schneider Electric
- Cisco Catalyst switches and Cisco ISR G2

Context Aware Healthcare Solution

Providing Functionality from Distinct Feature Sets

Location Services

Enabling tracking and alerting for hospital based equipment, employees, or admitted patients

Asset Tracking and Alerting 	Equipment Inventory and Maintenance 	Condition Monitoring 	Patient and Staff Tracking 	Staff Duress and Infection Control 
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Connected Mobile Experiences

Providing unprecedented user engagement as well as analytics

DETECT  GUEST PRESENCE	CONNECT  GUEST ACCESS	ENGAGE  GUEST EXPERIENCE
Mobile device detection, registration	Seamless, secure Wi-Fi onboarding	Location-based content and services

Indoor GPS and Directions
Location Based Messaging
Clinical System Integration
Advanced Analytics
Automatic Wireless On-Boarding

Integrated Wireless Security (WIPS)

Real Time Location Services (RTLs)

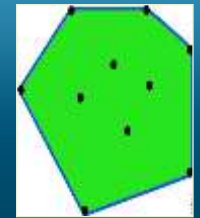
Increased Accuracy

- Create an AP Perimeter which facilitates greater accuracy
- Use of chokepoints provides electronic “gates” to track assets
- Improved Location Algorithms available on the Cisco MSE 3300



Design 802.11 Network for RTLs

- Wireless Networks supporting RTLs require specifically placed APs to optimize location tracking
- RF Fingerprinting based systems improves accuracy for RSSI (Receive Signal Strength Indicator) based systems



Wi-Fi-based Hospital-wide Visibility Applications

Asset Management



Temperature & Humidity Monitoring



Patient & Staff Safety



Patient Flow



Infection Control



Existing Wi-Fi Network

LOCATION, CONDITION and STATUS of assets, patients and staff



In use

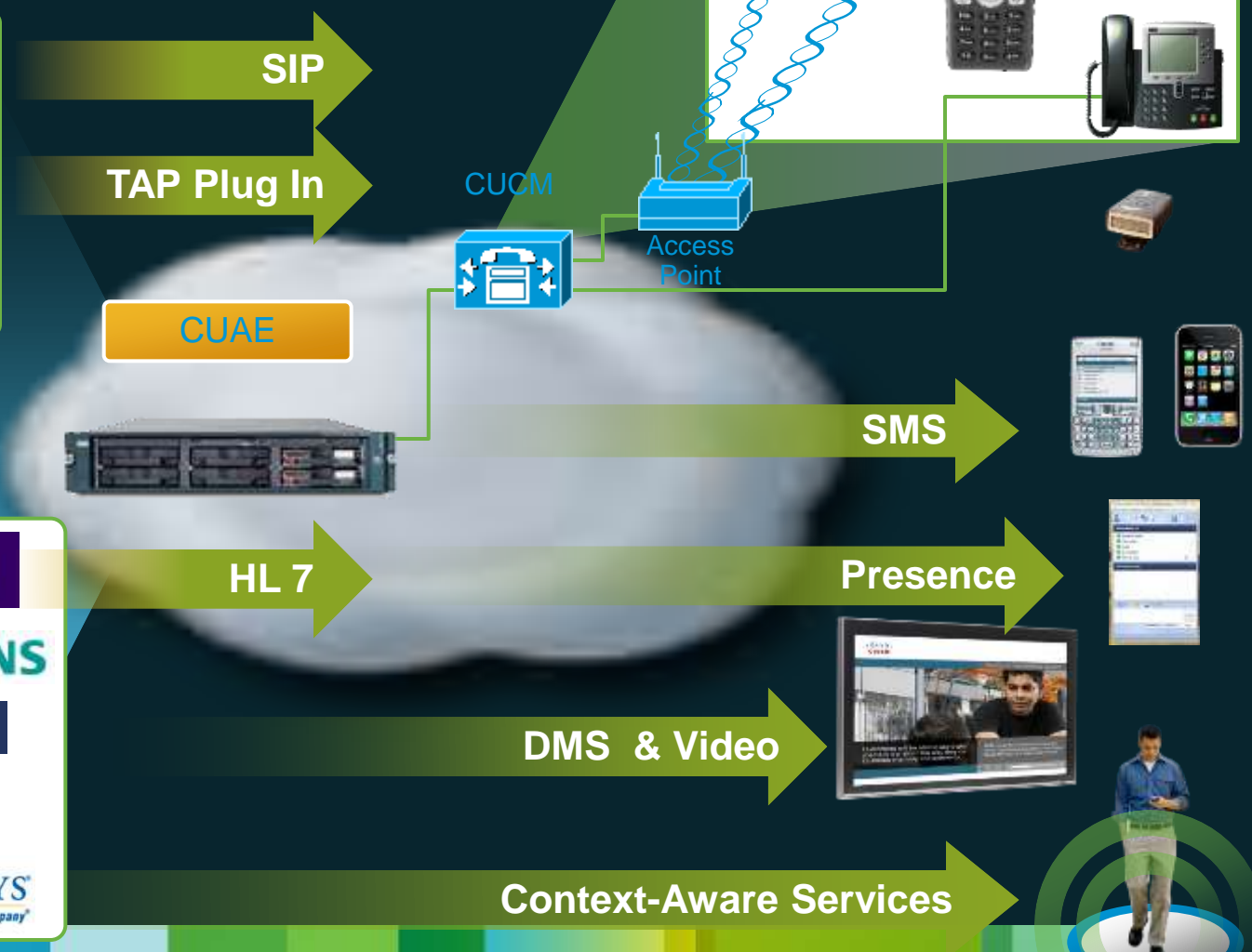


Cisco as the Platform for system-to-human workflow

Nurse Call Vendors



Medical Device Vendors



Thank You

