



# Cisco Physical Security



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**Physical Security, Emerging Markets**

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# Don't Let Good Technology be Hampered by Bad Implementation



# Agenda

- ☐ IP Convergence Drivers
- ☐ Cisco Physical Security
  - ☐ Video Surveillance
  - ☐ Access Control
  - ☐ IPICS
- ☐ Making it all work together



# IP Convergence Drivers



# Traditional Safety and Communication Systems

Access—  
Buildings



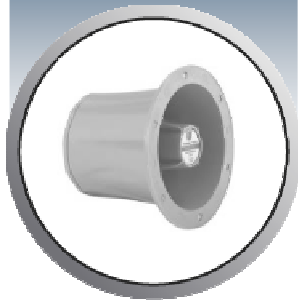
Monitoring



Alarms



Paging



Video



Voice



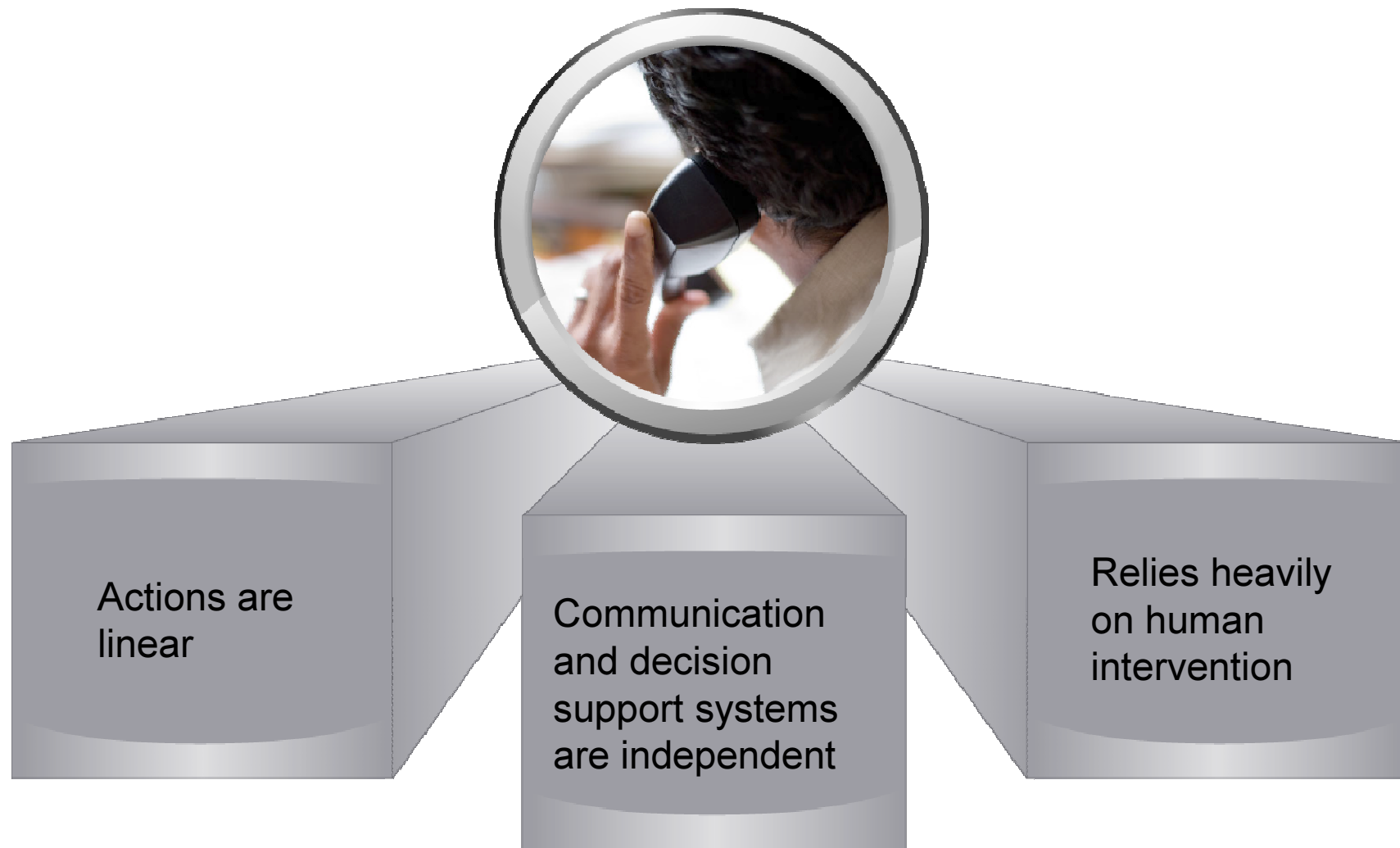
Radio



“...the physical security environment has been dominated by analog, stand alone control systems with limited interconnectivity, digital communications, or integrated management capability.”

Trends 2007: Physical and Logical Security Convergence  
Forrester Research

# Traditional Systems Response



“Convergence is not about the unification of security into one environment, but about **collaboration** between environments.”

Trends 2007: Physical and Logical Security Convergence  
Forrester Research

# Convergence Drivers



IP-based physical security technology **takes advantage of existing network infrastructure**

**Leverage network security features** that authenticate users

**Monitor rogue behavior**

Implement **policy-based responses**

Industry groups are establishing technical **interoperability standards** between physical security systems and IT

# Converged Systems Response



# Cisco Physical Security Portfolio



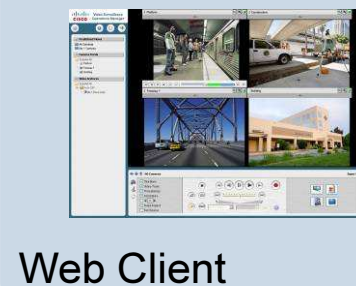
# Physical Security Systems

Capture

View

Store

Respond



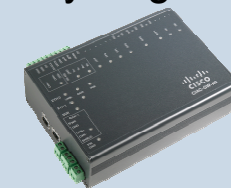
Video Surveillance  
Manager



Integrated  
Comms



Policy Engine

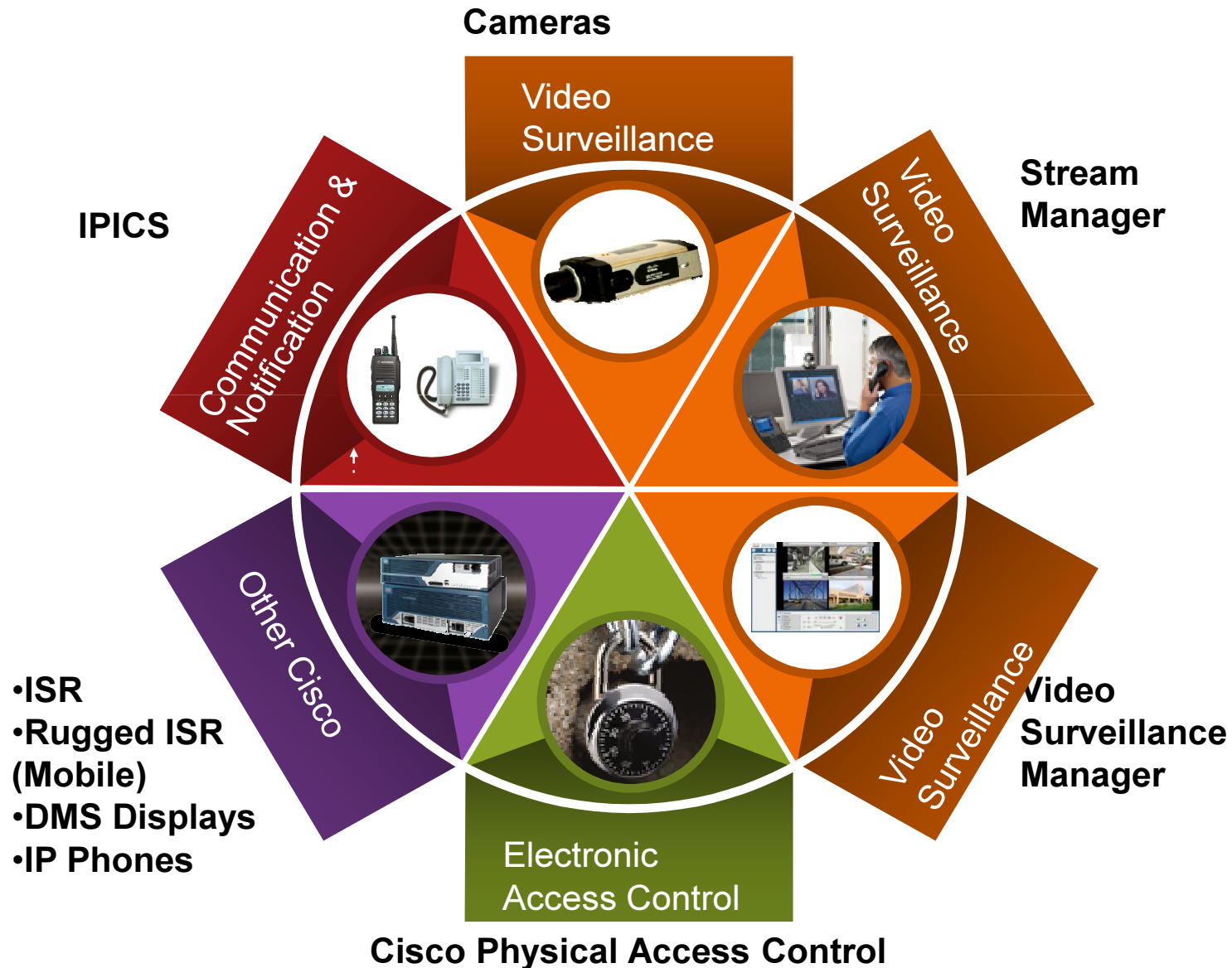


Access Control

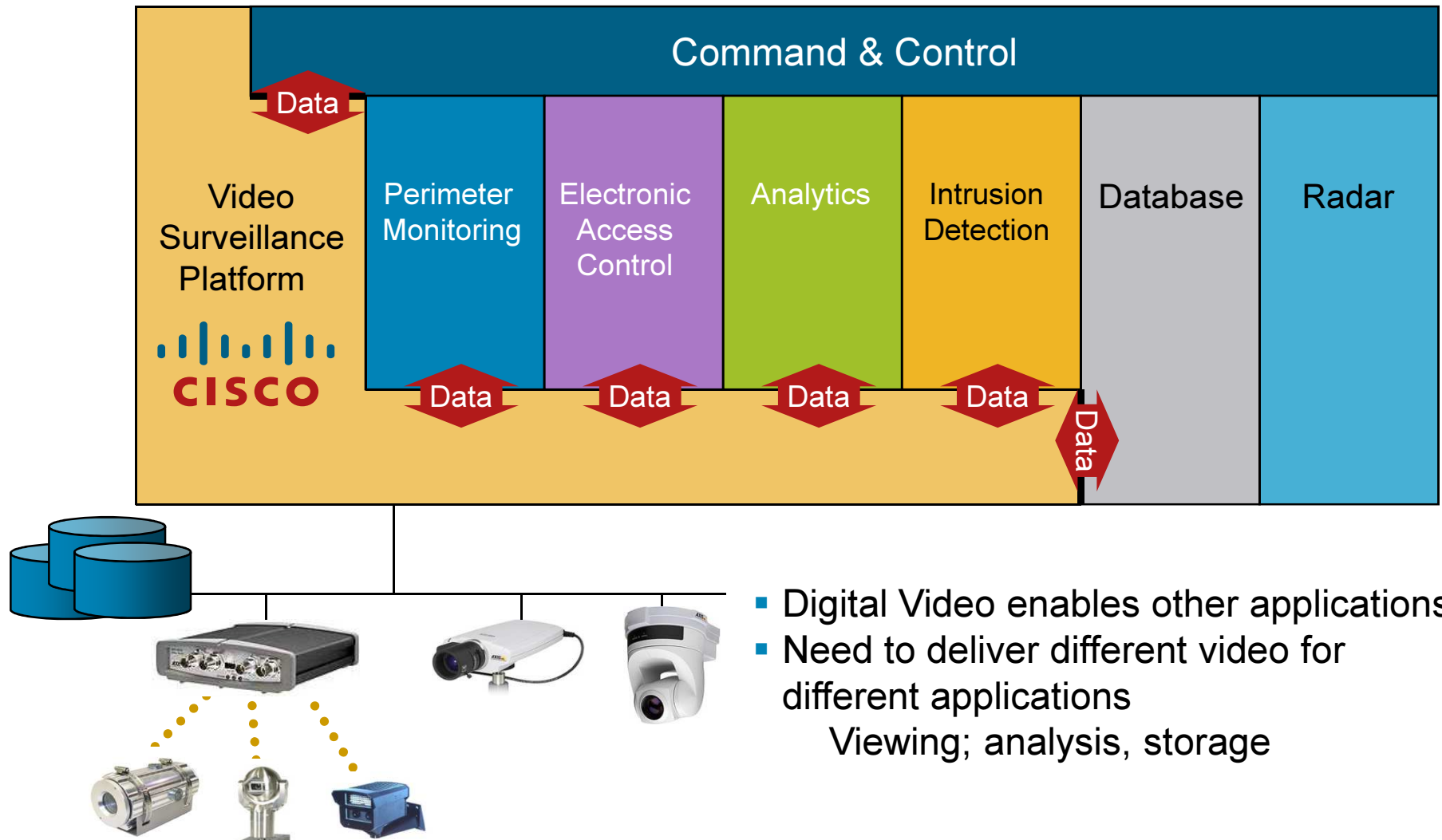
Network as the Platform



# The Physical Security Portfolio



# Open Architecture “Enables” Integration with Other Applications



- Digital Video enables other applications
- Need to deliver different video for different applications  
Viewing; analysis, storage

# Cisco Video Surveillance Portfolio

Interoperability, Investment Protection, New Capabilities



## Software

Viewing, Management, Virtual Matrix Switching,  
Configuration, Customization  
PC and Web Clients  
Application Integration



## Video Recording and Storage

IP & Analog  
Event-tagged  
Local, Remote, Internal, SAN, DAS  
Integrated Router Module

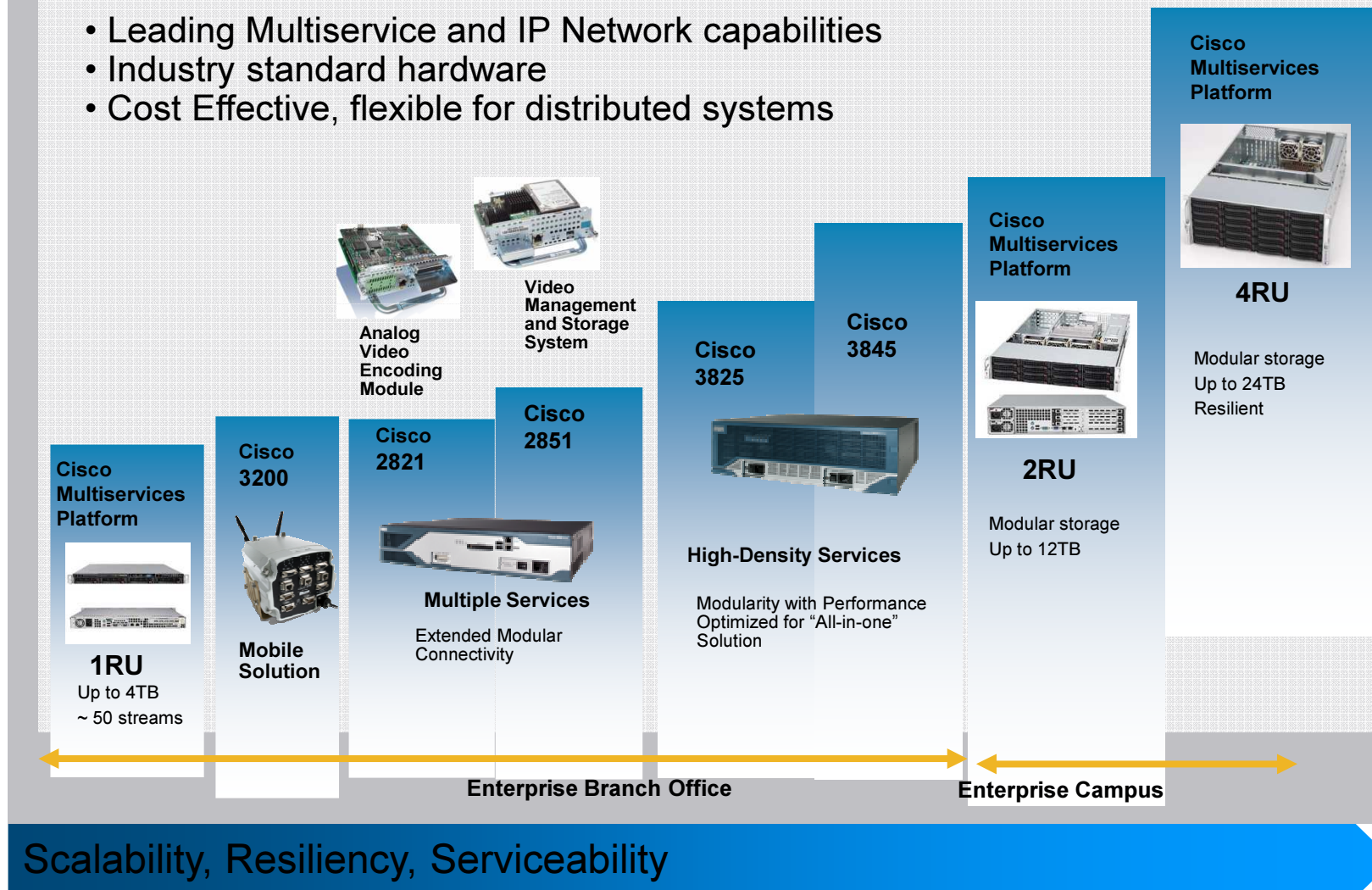


## IP Edge Devices

Analog camera encoding  
Analog display & control decoding  
Standalone & Rackmount  
IP Cameras

# Video Surveillance Platforms

- Leading Multiservice and IP Network capabilities
- Industry standard hardware
- Cost Effective, flexible for distributed systems



# “Router-Integrated” Video Surveillance



**The network is the platform  
reinvents safety and security**

Easier to deploy new and extend existing sites

Greater monitoring flexibility, anywhere anytime

Tighter linkage between video surveillance and other branch applications

## Operational Efficiency

- Fewer devices at the branch
- Converged UC-VS platform
- One management system
- Simplified troubleshooting
- Lower TCO

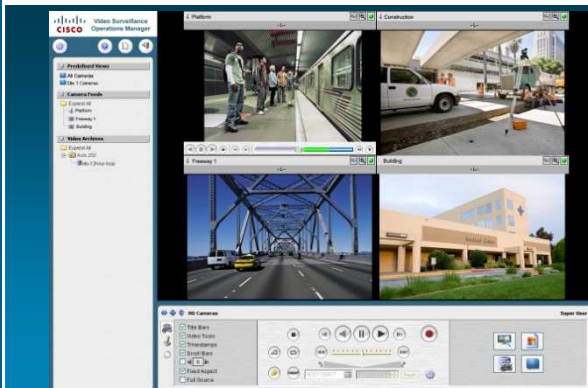
## Investment Protection

- Leverages existing IP network
- Smooth analog to IP transition
- Leverages installed base of ISRs

# “Router – Integrated” IP Video Surveillance and Video Recording



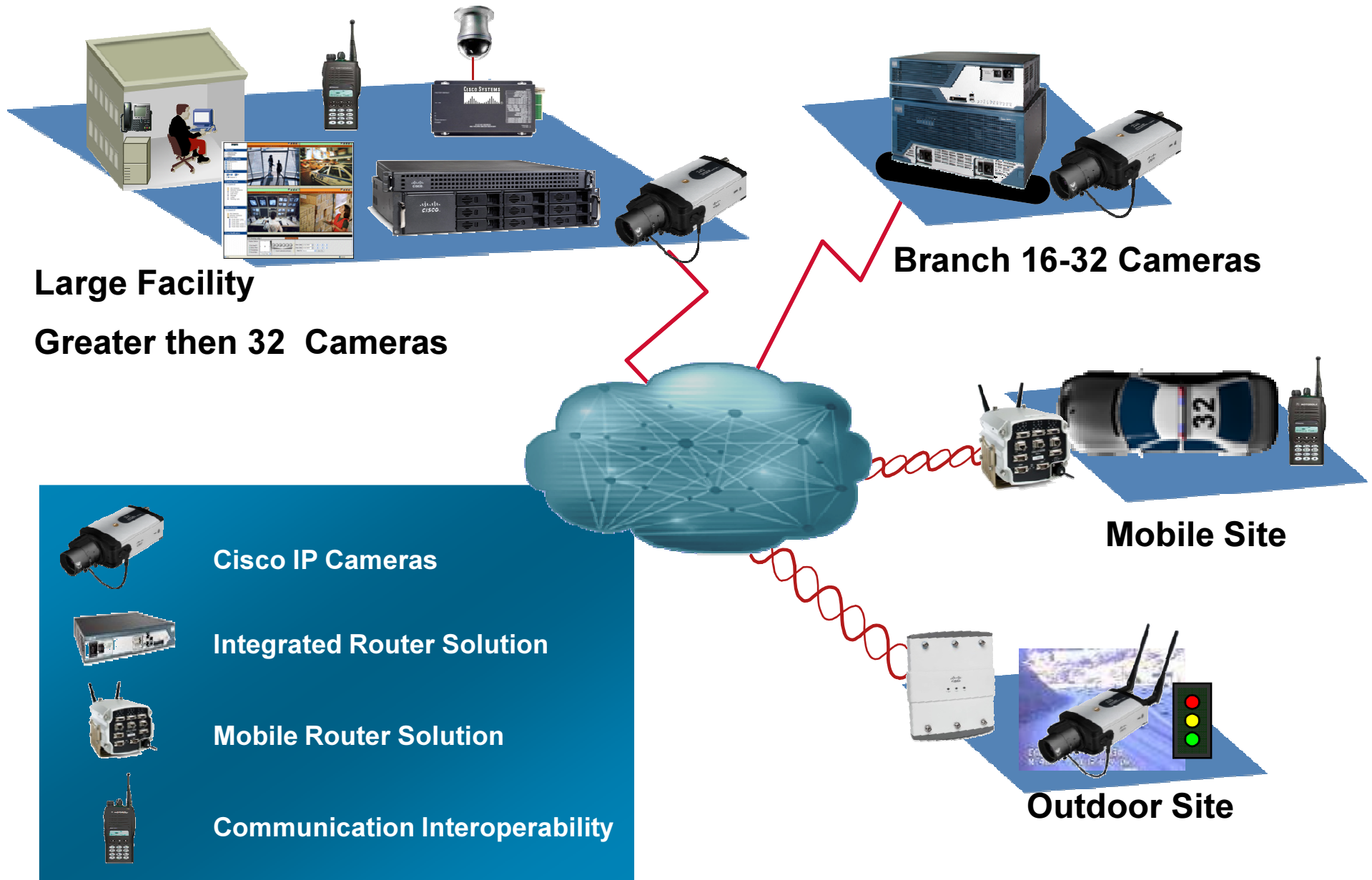
Integrated Analog Video Gateway  
Hybrid Analog and IP Cameras  
Integrated Video Management  
and Storage System



## Cisco Integrated Services Routers

- **Analog Video Gateway: IPVS-16A**
  - Analog video interface for IP Video Surveillance
  - 16 Analog Video Ports: MJPEG, MPEG-4
  - 8 Contact Closure Ports
  - 2 RS-485 ports for device Pan/Tilt/Zoom control
- **Integrated Video Management and Storage System: VMSS**
  - Targeted at <32 stream (camera) deployments
  - Utilizes pre-packaged VS Operation Manager and VS Media Server
  - Manage, view and archive surveillance data for up to 32 devices simultaneously
  - Unified interface into IP Cameras and Analog devices (through the AVG)

# Cisco Networked Video Surveillance Solutions



# Cisco IP Video Surveillance Cameras 2500 Series – Fixed Cameras

- CIVS-IPC-2500
- Fixed Wired Camera



- CIVS-IPC-2500W
- Fixed Wireless Camera



- CIVS-IPC-VF38
  - ✓ Fujinon 3 - 8 mm
- ✓ CIVS-IPC-VT38
  - ✓ Tamron 3 – 8 mm
- CIVS-IPC-VF31 @
  - ✓ Fujinon 3 - 11 mm
- CIVS-IPC-VT31
  - ✓ Tamron 3 – 11 mm
- CIVS-IPC-VF55
  - ✓ Fujinon 5 – 50 mm
- CIVS-IPC-VT55
  - ✓ Tamron 5 – 50 mm

# Introducing Cisco IP Video Surveillance Cameras 4500 High Definition Cameras

- True HD Video Surveillance Camera
- Outstanding Image Quality
- No other HD VS camera on the market
- 1080p (1920 x 1080) 30 FPS
- 720p (1280 x 720) 60 FPS
- H.264, MJPEG Compression
- Dedicated Digital Signal Processor (DSP) for Video Analytics
- USB Memory Card
- Application Programming Interface (API)
- IPv6



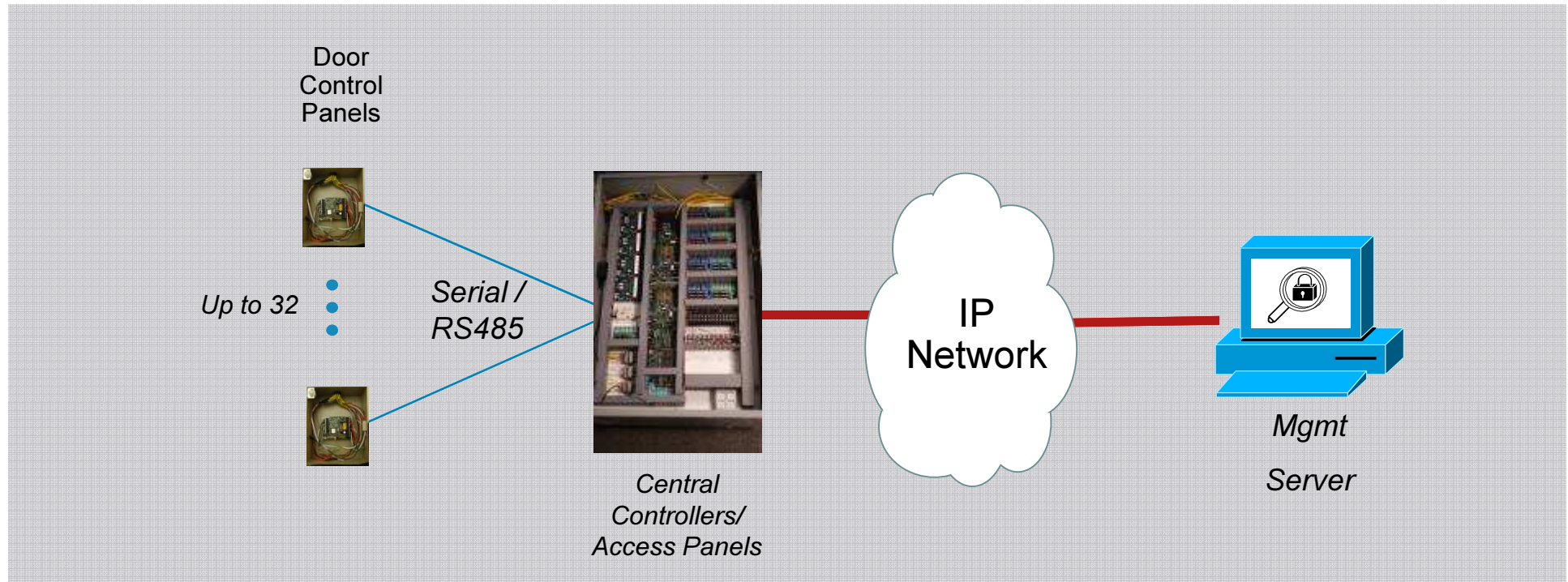
Wired (available Q1 CY09)  
and Wireless (available Q2  
CY09) models

# Cisco Video Surveillance IP Camera Fixed Domes

- Same core Cisco IP Camera as the Standard Definition (SD) wired version
- Fixed Dome Form Factor
- Power Over Ethernet (Indoor)
- Multiple Flavors
  - Indoor Flush Mount, Surface Mount
  - Indoor Vandal Resistant
  - Outdoor Vandal Resistant
- API for interfacing with third party vendors
- Integration with VSM and Stream Manager
- Available Q2 CY09

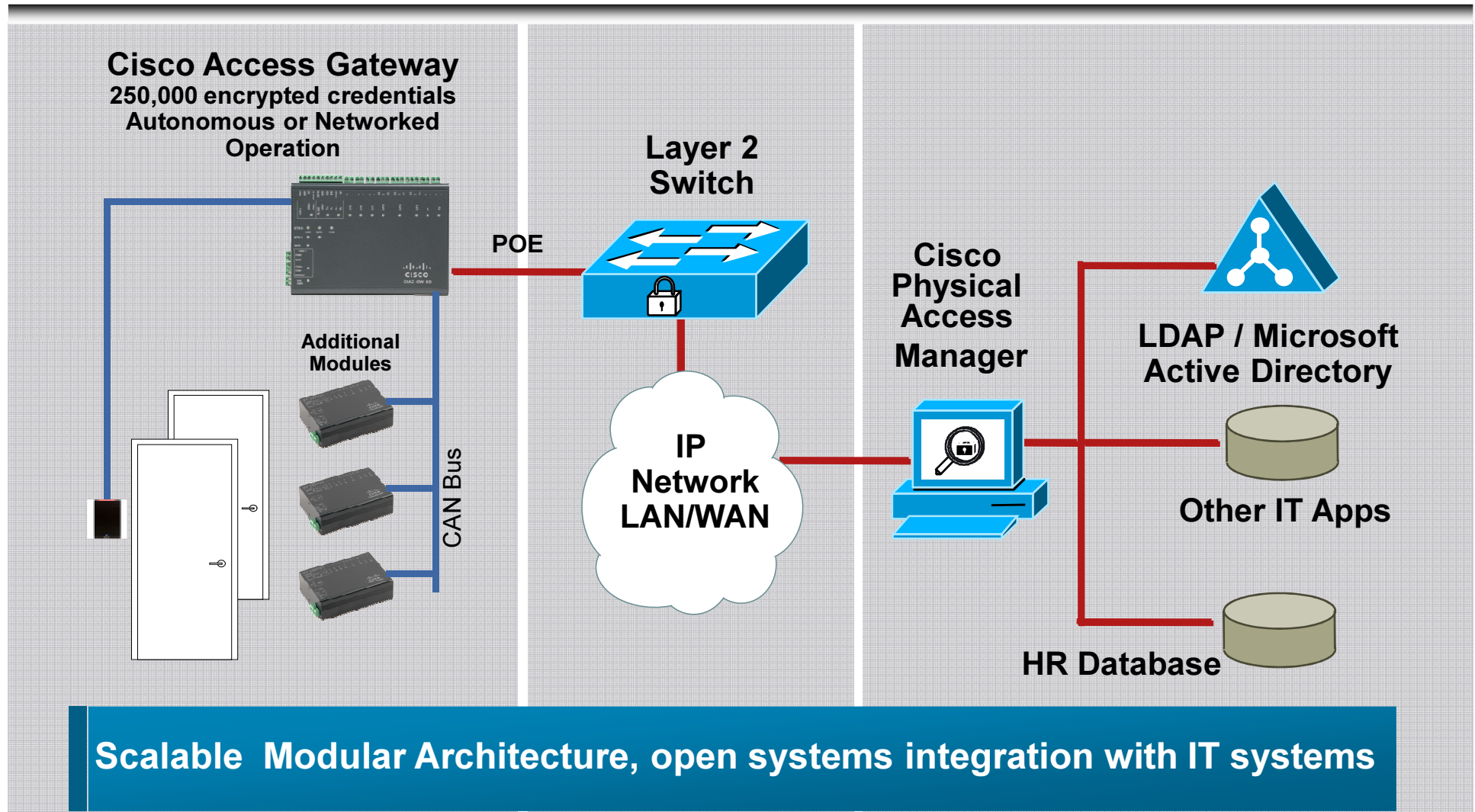


# Electronic Access Control architectures today....



- Complex & expensive to design, deploy and maintain
- Not capable of incremental deployment : Upfront design cycle required
- Separate power circuit required to power door hardware

# Cisco Physical Access Control: A Uniquely Expandable Architecture



# Cisco Physical Access Control Overview

- **A Comprehensive Solution** for Electronic Access Control
- Leverages IP infrastructure, integrates with other Physical Security applications



## ■ Hardware:

Cisco Access Gateway connects existing door hardware (readers, locks etc.) to the network

Additional doors can be managed by connecting expansion modules to the Access Gateway

## ■ Software

Cisco Physical Access Manager (Cisco PAM) is a Management Appliance for configuration, monitoring and report generation.

# Cisco Physical Access Manager (Cisco PAM)

1 RU Appliance

Java Thin Client Architecture

Policy Support: Two-Door, Anti-Passback

Report Generator (Canned & Custom)

Badge Design & Enrollment

Microsoft Active Directory integration

Fine grained user rights

Global I/O

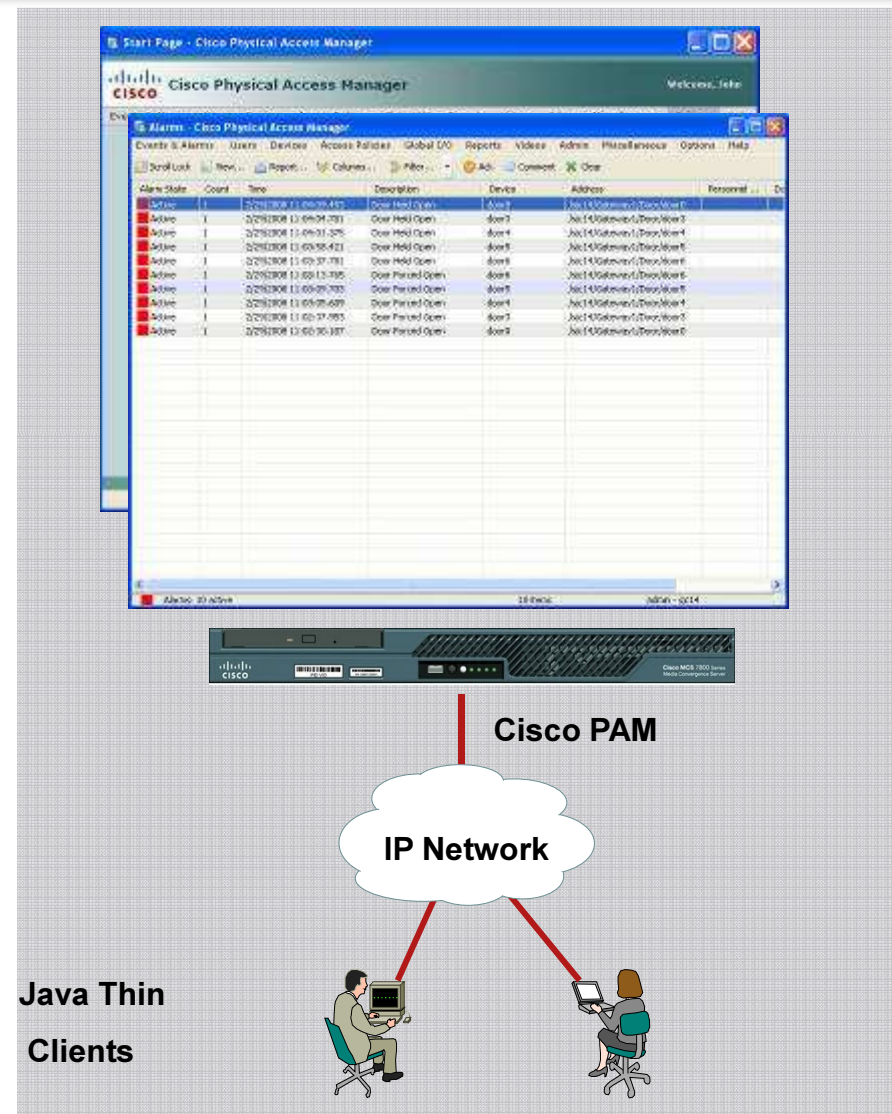
Device Pre-Provisioning

Capacity & Feature Licenses

IT Data integration

Warm Standby High Availability

Audit Trails



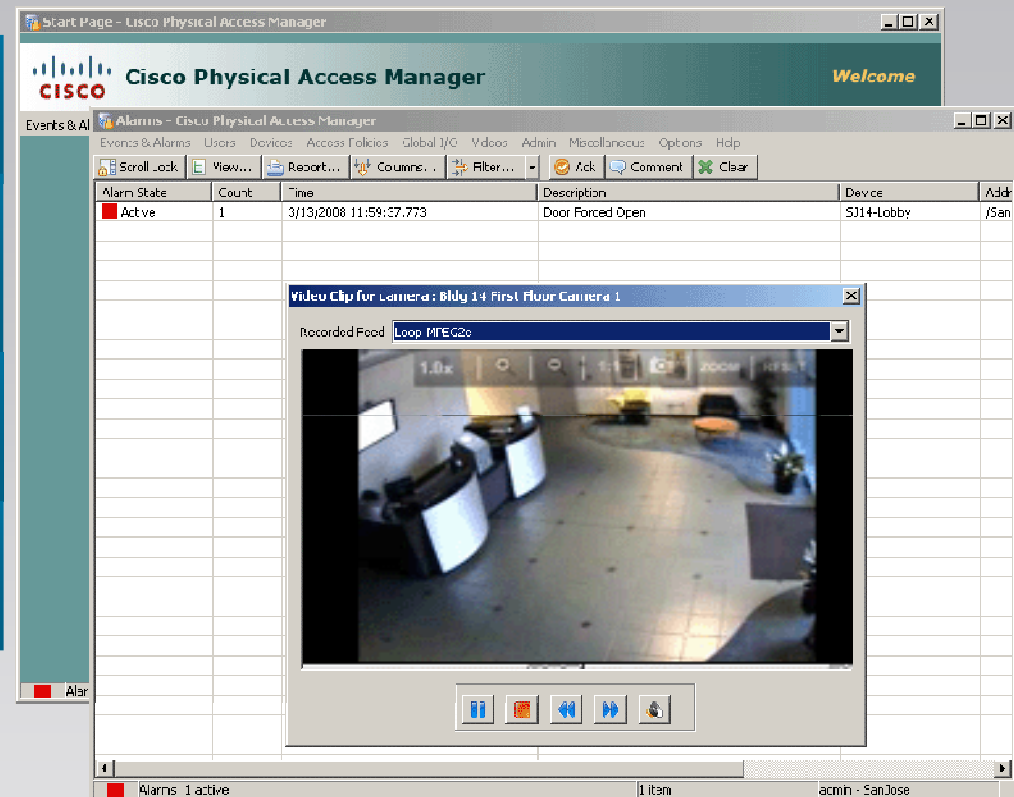
# Cisco Video Surveillance Manager (VSM) integration

## Event Video integration with Cisco VSM

Dynamically acquires camera inventory stored in Cisco VSM. Automatically tracks inventory.

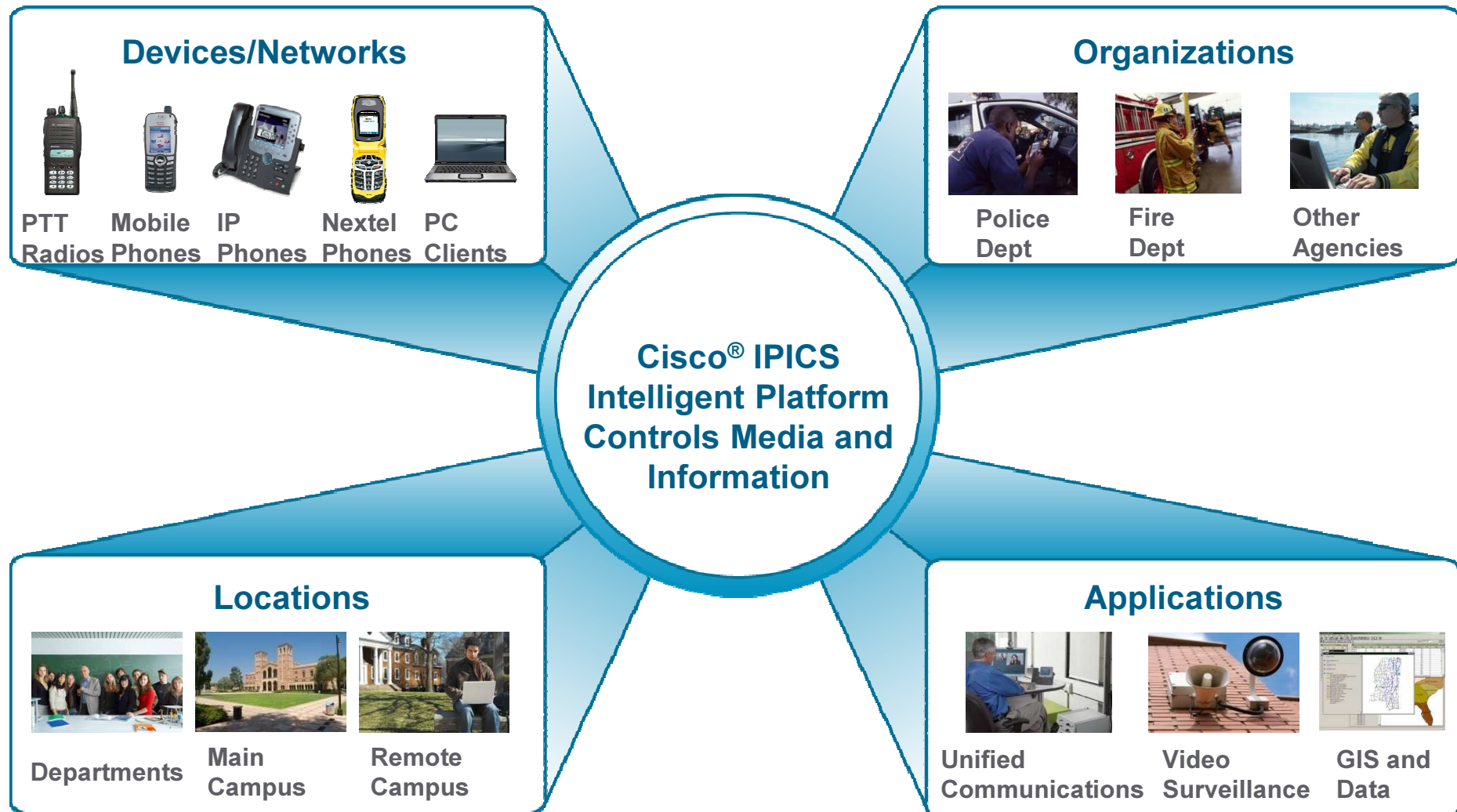
Allows association of cameras to doors.

For every event by the door, recorded and live video can be viewed.

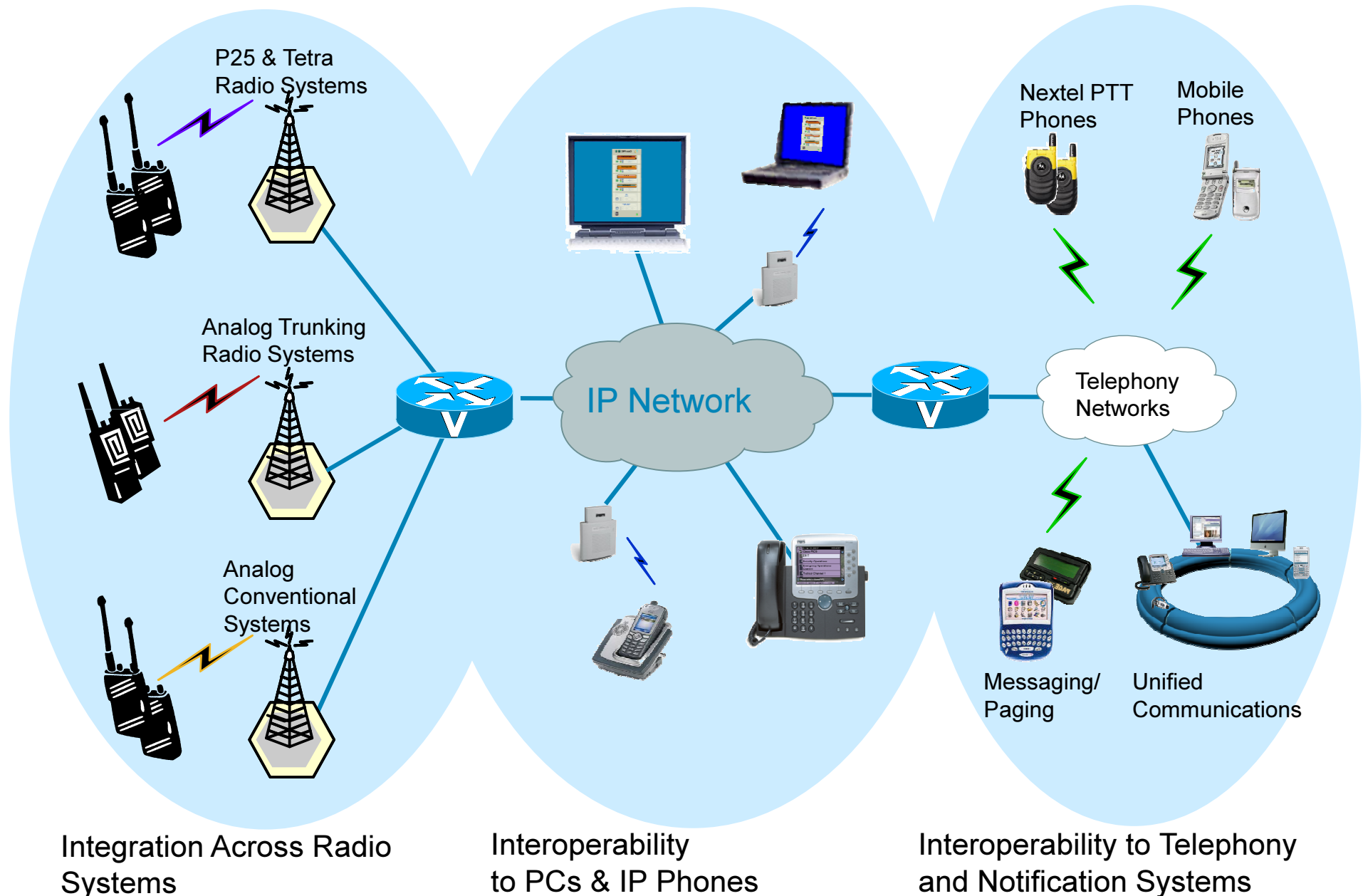


# Cisco IP Interoperability and Collaboration System (IPICS)

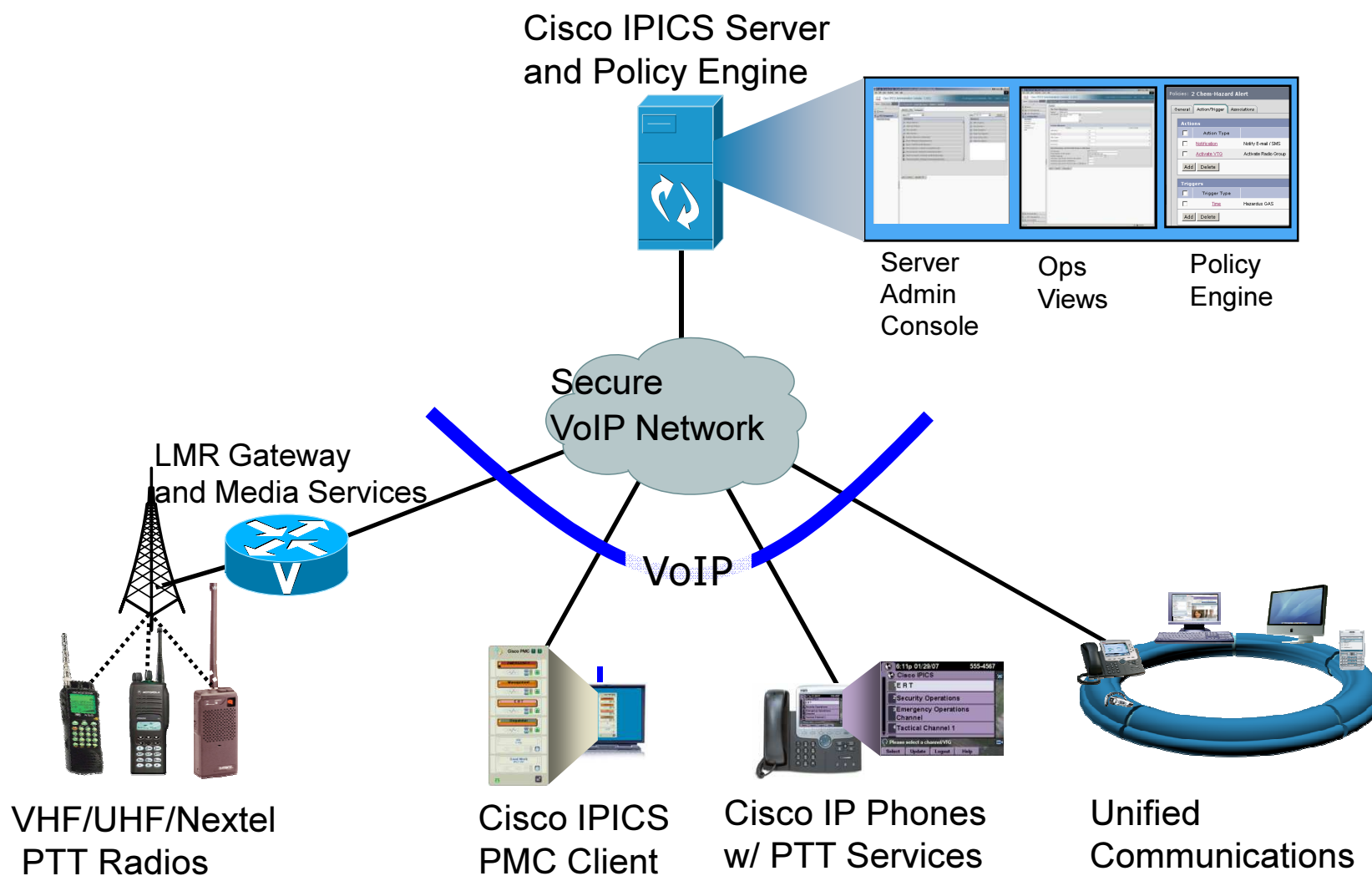
## Eliminates Campus Communications Silos



# IPICS Comprehensive Communications Interoperability



# The IPICS Solution



# Cisco IPICS Facilitates Coordinated, Inter-agency Response for Emergency and Everyday Use



## IPICS Server

- Dynamic resource management
- RMS
- Centralized management
- Ops view
- Web interface
- Activity logging
- Database backup/restore
- User roles
- Licensing



## IP Phone Client

- Enables push-to-talk
- Extends voice reach
- Channel communication
- Situational awareness
- Notification broadcast



## PMC Client

- Multicast/Unicast
- Offline/disaster mode
- DTMF
- PTT keyboard mapping
- Cached channel settings
- Multiselect for transmit
- Disable user feature



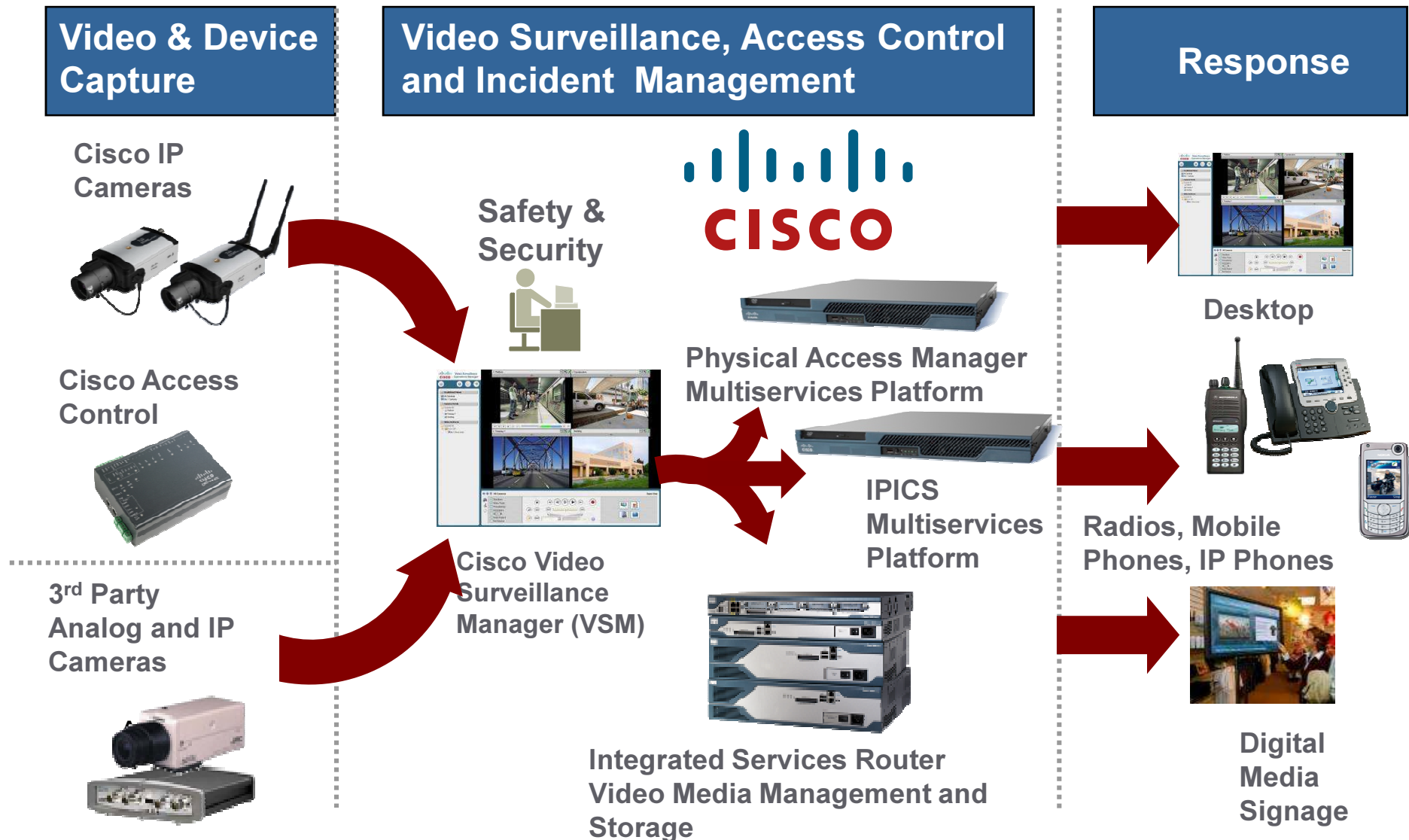
## Policy Engine

- E-mail/SMS/pager alerts
- Force mute/unmute/logout
- Policy automation
- Telephony interface
- SIP interoperability (Cisco CallManager/Call Manager Express)

Making it all work  
together



# Cisco Physical Security: Video Surveillance, Access Control, Incident Response



# Commitment to Open Standards

Support of new IP Media Device API specification introduced by the PSIA to standardize how devices communicate with the network

- Defines uniform methods for how devices communicate with the network

Discovery and Configuration  
Command and Control

- Ensures Systems Integrators can focus on value added capabilities rather than writing new device drivers
- Provides physical security and IT with cost effective options to evolve and customize solutions

## Cisco Video Surveillance IP Cameras

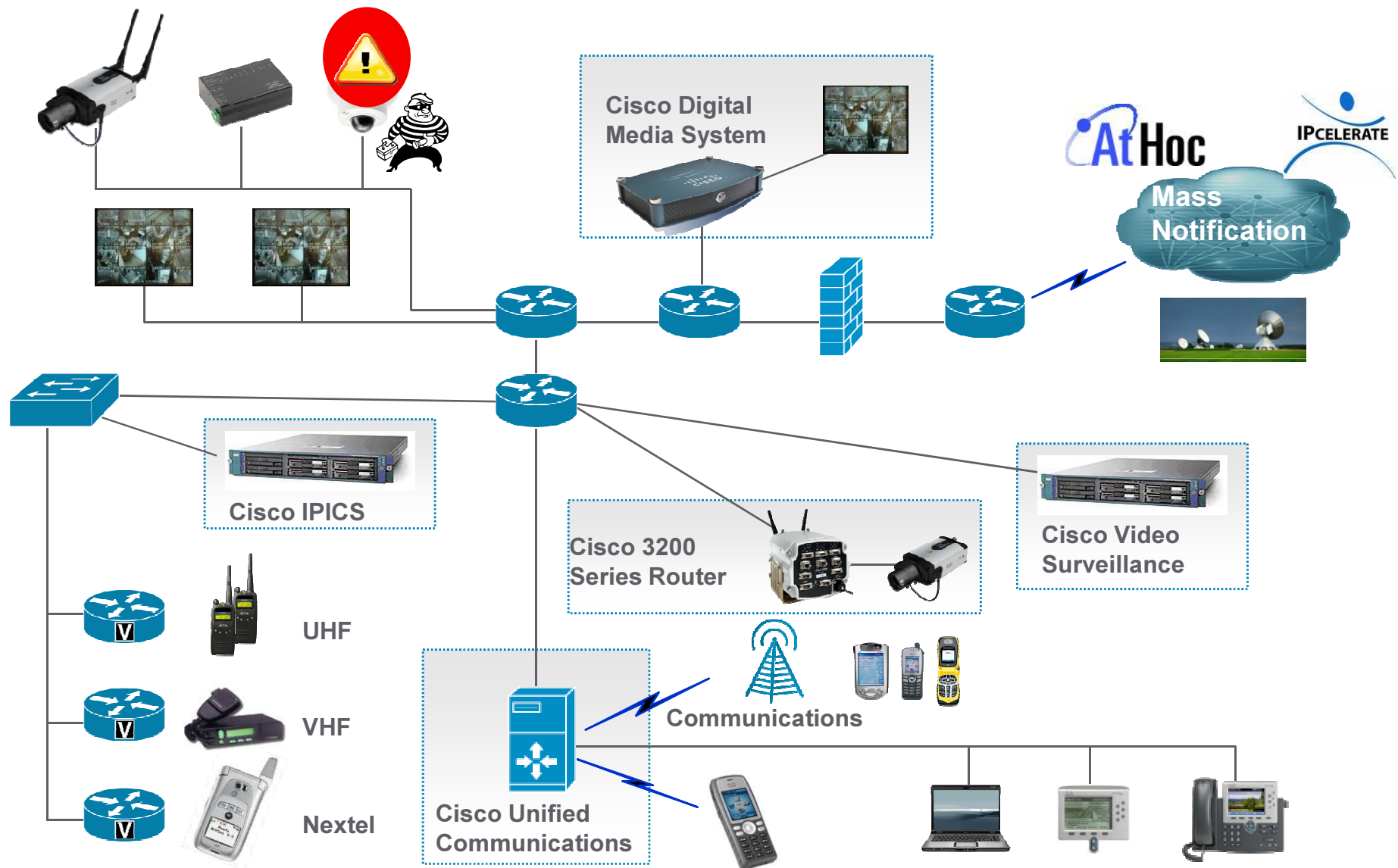


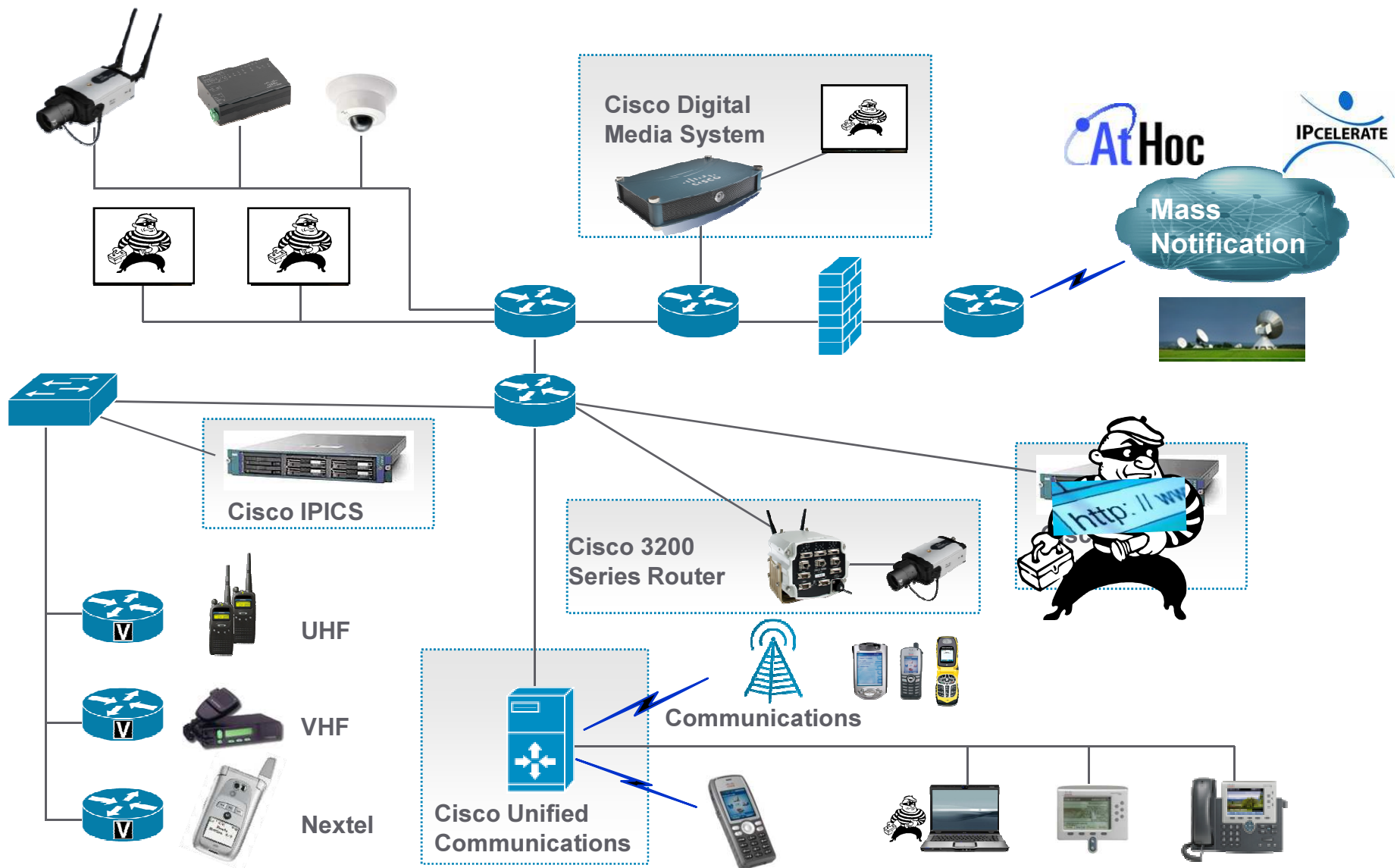
The initial **Physical Security Interoperability Alliance (PSIA)** specification is endorsed by the following industry leaders: Adesta LLC, ADT Security Services, Cisco, CSC, DVTel, GE Security, Honeywell, IBM, IQinVision, Johnson Controls, March Networks, ObjectVideo, Orsus, Panasonic, Pelco, Santa Clara Consulting Group, Texas Instruments, Verint and Vidyo.

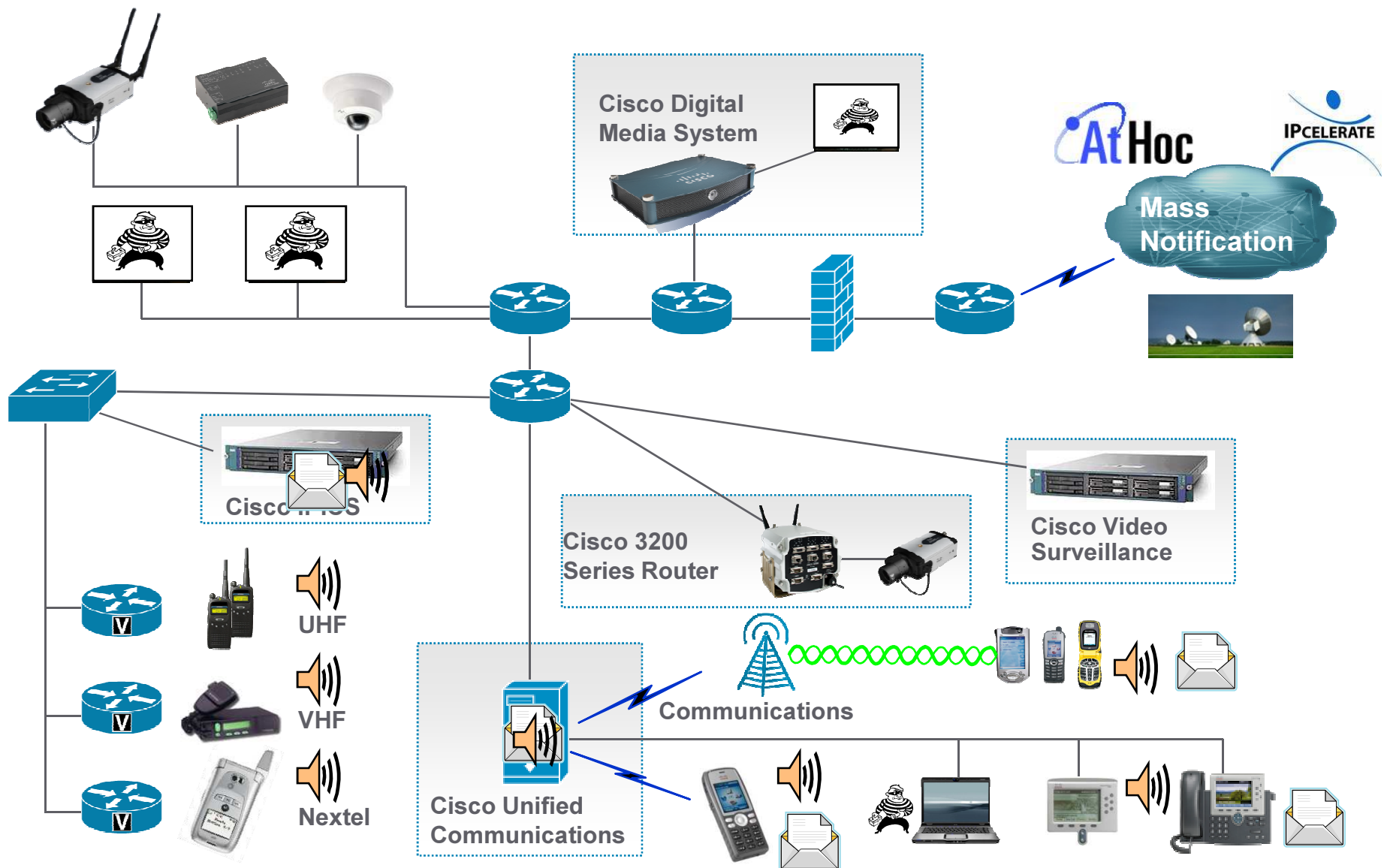
# Cisco's Integrated Approach to Physical Security



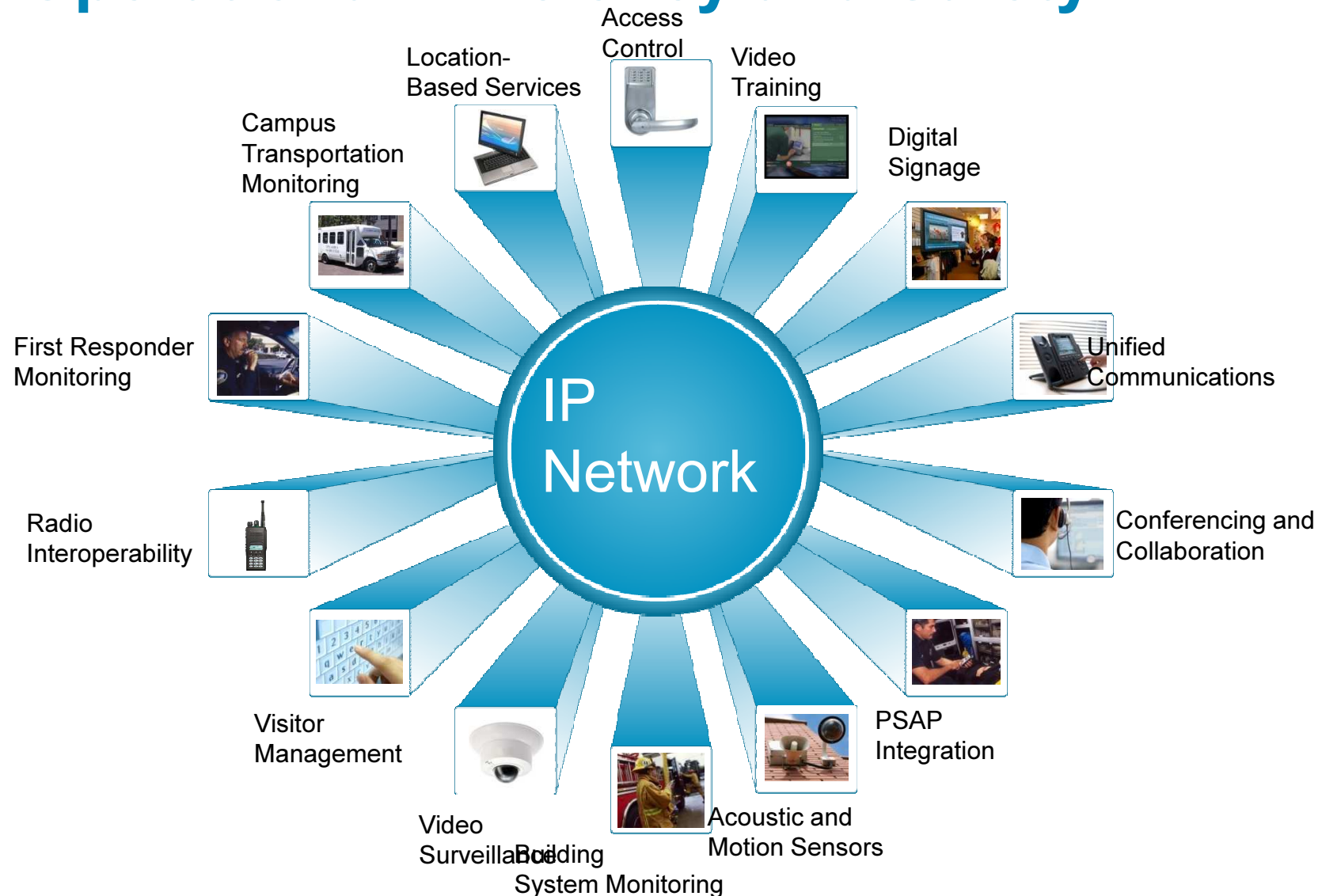
# How do we make this work?







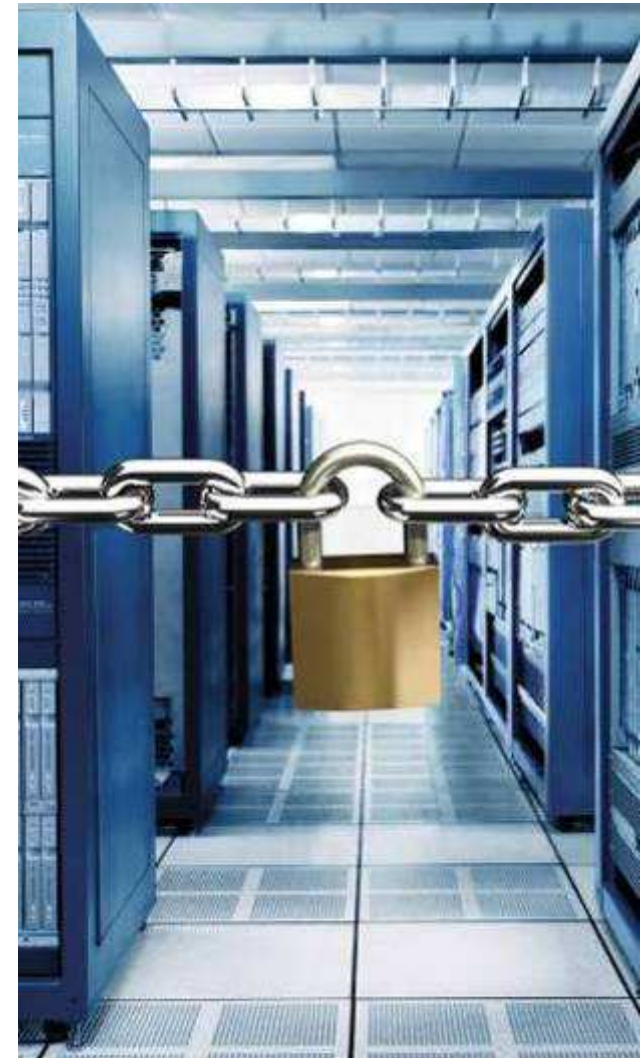
# Networked Technologies Enhance Operational Efficiency and Safety



# Cisco Leads Security Industry Transformation

## Using the Network as a Platform

- Proprietary to open architecture:
  - More customer choice
- Integrated Systems:
  - Total awareness and control of events
- Distributed Information:
  - Faster Response
  - Appropriate information to relevant personnel
- Technology migration:
  - Use budget to expand and enhance, not replace
  - Technologies introduced as proven lower total cost of ownership



# Why Cisco Connected Physical Security?





**CISCO**