



Cisco Connected Physical Security Solutions

Transforming the Way Organizations and Communities Protect People, Property, and Critical Infrastructure

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Agenda

- ✓Physical Security is Changing, Differentiated and Strategy
- ✓IP Cameras
- ✓Video Surveillance
- ✓Access Control
- ✓Incident Respond (IPICS)
- ✓Connected Physical Security Solutions
- ✓Industry Applications

Physical Security Is Changing

Moving From:

Proprietary legacy systems

Siloed organizations and “point products”

Manual processes: Increases TCO

Geographically dispersed facilities and personnel

Separate network and physical security

Legacy technology: Analog, DVRs, standard definition

Dedicated architecture for hardware, applications, and storage

Local storage

Moving To:

Open standards-based

Solutions focus and converging organizations

Drive automation and efficiencies through new technology

Centralized security management via IP

Converged network and physical security

IP, high definition, network video surveillance

Virtualized architecture for security, applications, and storage

Local, data center, and cloud storage

Cisco's Differentiated Strategy

Differentiated Connected Physical Security Product Suite

- Video surveillance
- Access control
- Incident response/notification

Transition from Products to Solutions

Highest Quality Products, Easiest to Deploy, Use, and Maintain

Tight Cisco IP Network Integration (medianet)

Lowest TCO for Customers



Cisco Connected Physical Security Solution

IP Cameras



Standard Definition and High Definition IP Cameras

- Box, dome, PTZ
- Wi-Fi
- Indoor and outdoor
- Onboard analytics
- Medianet

Video Surveillance



Video Surveillance Manager

- Forensic search
- Bulk camera UPG
- Health dashboard
- Open standards

Access Control



Physical Access Manager

- Biometrics
- Mapping
- Web services API
- High availability
- Integrated video

Notification and Response



IPICS

- Dispatch console
- Mobile client
- Rich media
- High availability
- PTT to IP phone

Open API

Open API

Open API

TelePresence

VTG-ORA

PMBU— Logical/
Physical Access

Cisco Integration

S+CC

Digital Media

VTG—Access Control via IP Phone

Media Trace

Auto Discovery

Medianet

Auto Configuration

Media Monitoring

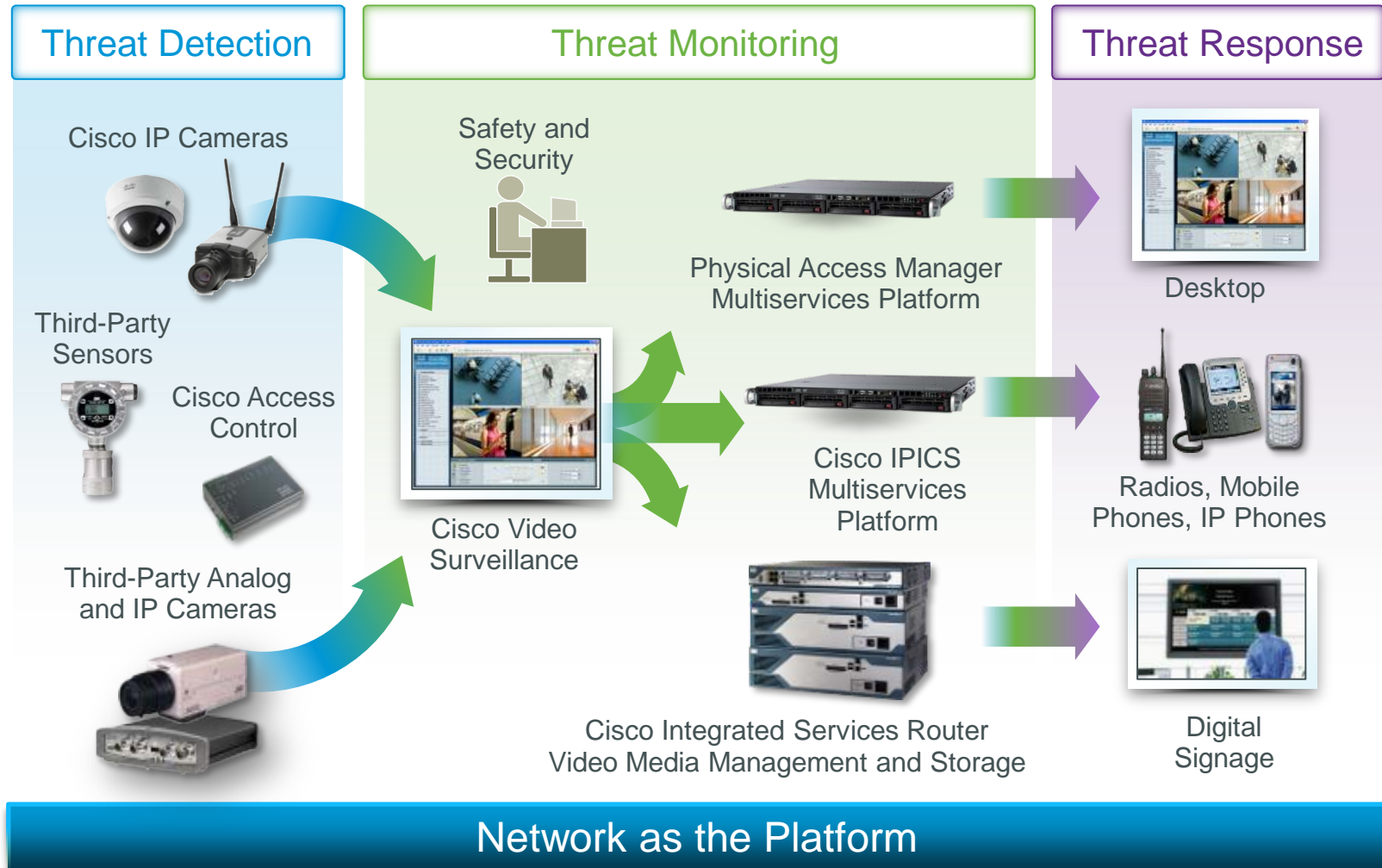
Security Health Monitoring Quality of Service

IP Network

Auto Updates

Authentication

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



Cisco's Integrated Approach to Physical Security

60+ Ecosystem Technology Partners

Sensors, LPR/OCR Integration and Policy



Analytics



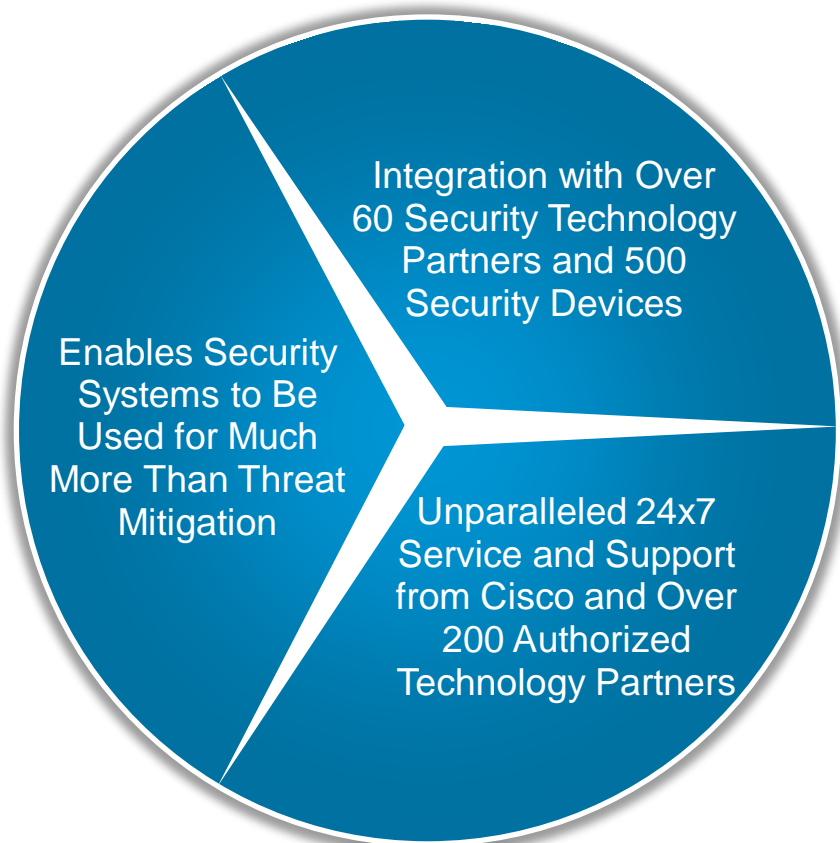
Command and Control



Notification and Access Control



Customer and Partner Success

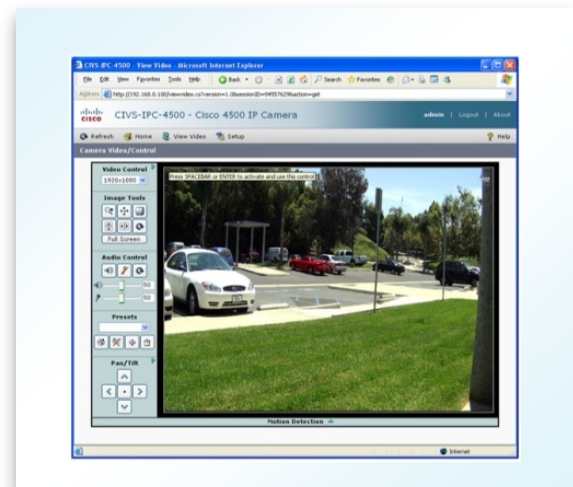










IP Cameras

Cisco Video Surveillance IP Cameras

- High definition, standard definition, wired, wireless, box, dome, and PTZ IP cameras
- Access to video at any time from any place
- Embedded security and networking
- Motion detection and event notification
- Edge video analytics
- Easy to deploy with power over Ethernet

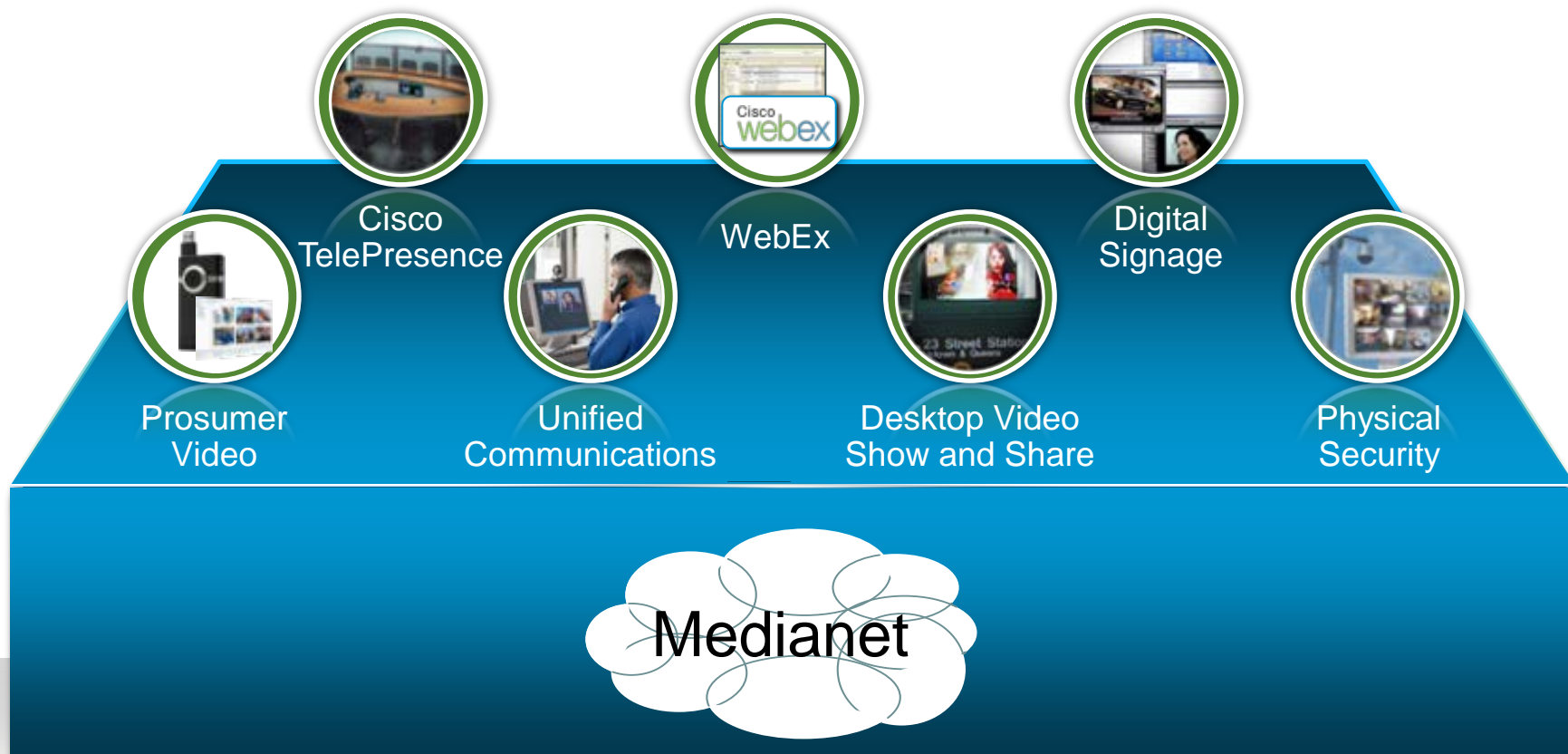


Cisco Video Surveillance IP Cameras

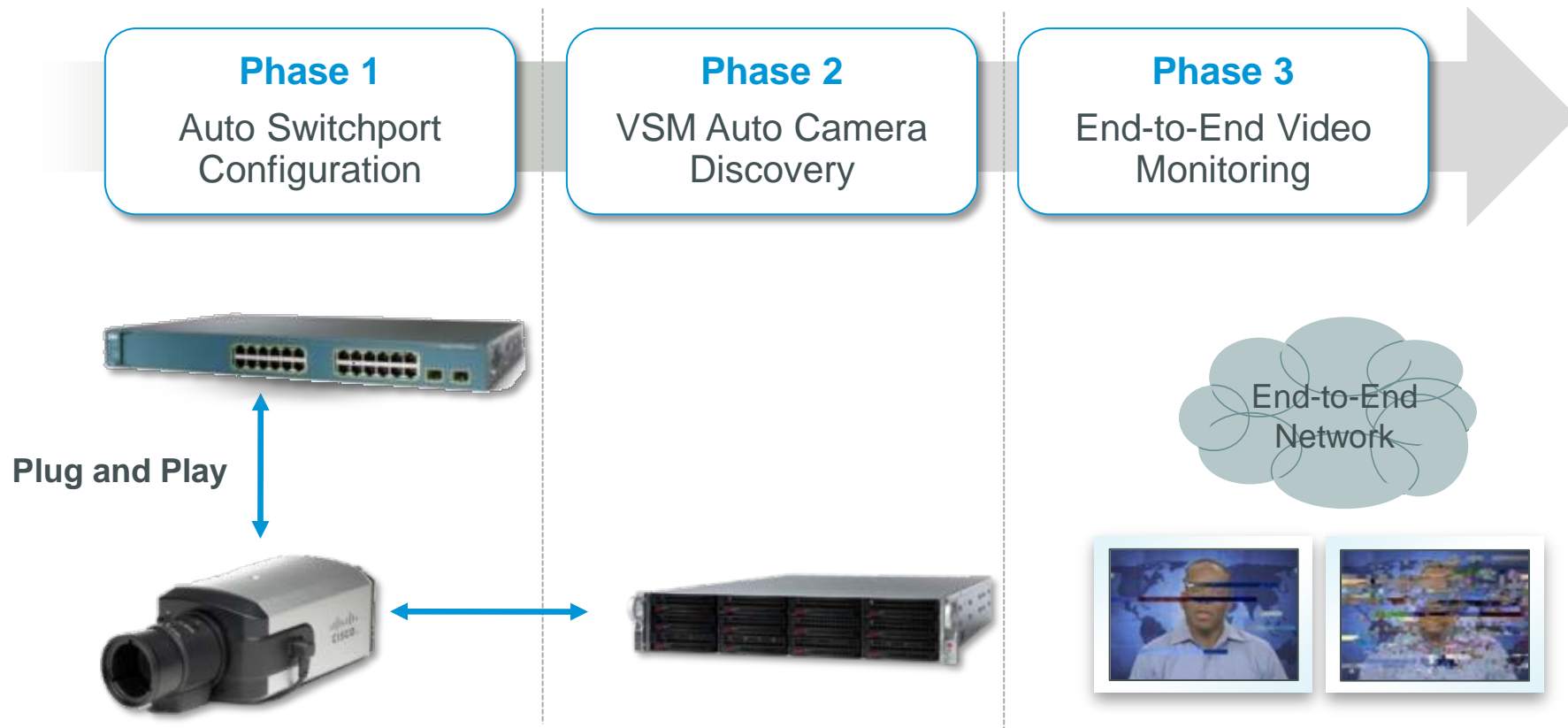
	Model	Description	Features
	5000 Series	1080p HD Dome IP Cameras	<ul style="list-style-type: none"> • Auto back focus • Super low light
	4000 Series	1080p HD Box IP Cameras	<ul style="list-style-type: none"> • Medianet support • Edge-based video analytics
	2900 Series	SD PTZ Dome IP Cameras	<ul style="list-style-type: none"> • Indoor and outdoor models • 360° continuous pan and 256 presets
	2600 Series	SD Dome and Box IP Cameras	<ul style="list-style-type: none"> • Motorized focus and zoom lens • Indoor and outdoor mounting options
	2500 Wireless	SD Wireless IP Camera	<ul style="list-style-type: none"> • Better data throughput and higher link range • Supports various network protocols for 802.1x authentication
	Encoder Card	8- and 16-Port Video Encoder Card	<ul style="list-style-type: none"> • Hardware-based DSP encoding • Remote camera control

Effectively Deploy All Forms of Business Video with Medianet

Video Is > 50% of Traffic on IP Networks, Growing to 90% by 2013



Cisco End-to-End Advantage with Medianet



**Simplify Network IP Video Surveillance Solutions
Improved End-to-End Video Management**

Cisco Video Analytics

Cisco Video Analytics Base Package

- Security
 - Tripwire
 - Camera tampering
 - Loitering
- Counting
 - Multiline tripwire
 - Object classification

Cisco Video Analytics Optional “Plus” Package

- Security
 - Multi-tripwire
 - Object left behind
- Counting
 - Entry/exit
 - Dwell time
 - Occupancy

Advantages

- Base software at no charge with every camera
- Scalable, edge-based architecture: No need for external video analytics server
- New security and business applications

Cisco 4500
IP Camera



Events

Cisco Video
Surveillance Manager



Simple and Cost-Effective IP Video Surveillance and Video Analytics Solution with Processing in IP Cameras at the Edge of the Network



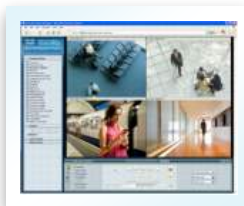
Video Surveillance

Cisco Video Surveillance Manager

Video Surveillance Media Server



Video Surveillance Operations Manager



Video Surveillance Virtual Matrix*



Software

Collect, Archive
Route Video

Manage and Control
Users, Video, and Devices;
View Video

Control and Display
Video on Any Video Walls

Secure Medianet-Enabled Cisco IP Network

Hardware

IP Cameras



Analog
Cameras



**IP and Analog
Cameras**

*Optional



1RU, 2RU, 4RU Server Platforms

Scalable Storage,
Video Encoding

4–24 TB Flexible Storage

**Physical Security
Multiservices Platform**

Cisco Video Surveillance Manager



Video Surveillance Media Server

- Core engine for the surveillance solution
- APIs for third-party integration (analytics, command, and control)
- Support for Cisco's portfolio of endpoints
- Capable of supporting third-party cameras and encoders



Video Surveillance Operations Manager

- “Thin” web user interface for real-time/archived video viewing
- Integrated administration of all devices and storage
- Systemwide health monitoring
- Forensic tools to speed investigations



Physical Security Multiservices Platform

- Easy-to-use and easy-to-deploy server suite
- High storage density and high-performing motherboard
- Optional video encoder card



Video Surveillance Virtual Matrix

- Remotely controlled video display application
- Simply push a defined layout of cameras to many operators



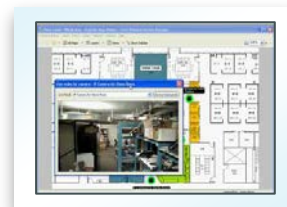
Access Control

Cisco Physical Access Control

CPAM: Badge Enrollment



CPAM: Access Control Map Interfaces



CPAM: Video Surveillance Integration



Cisco Physical Access Manager Software

Secure IP Network

Hardware



Physical Access Gateway



1RU Server Platform
Scalable Storage,
Video Encoding

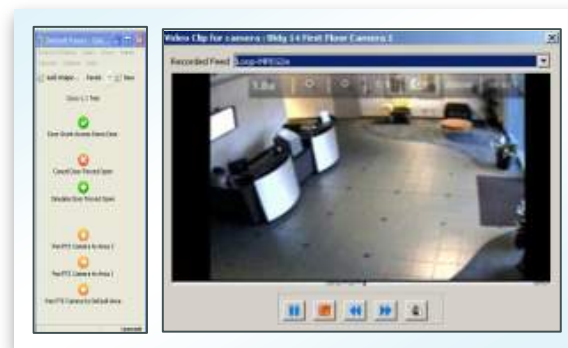
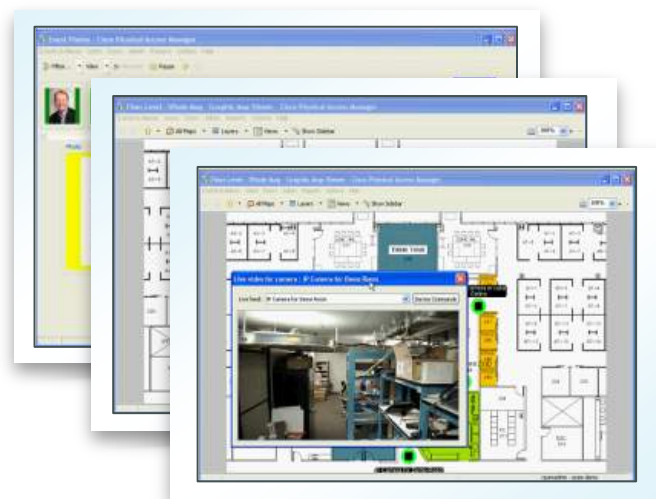


4-24 TB
Flexible Storage

Physical Security Multiservices Platform

Cisco Physical Access Manager

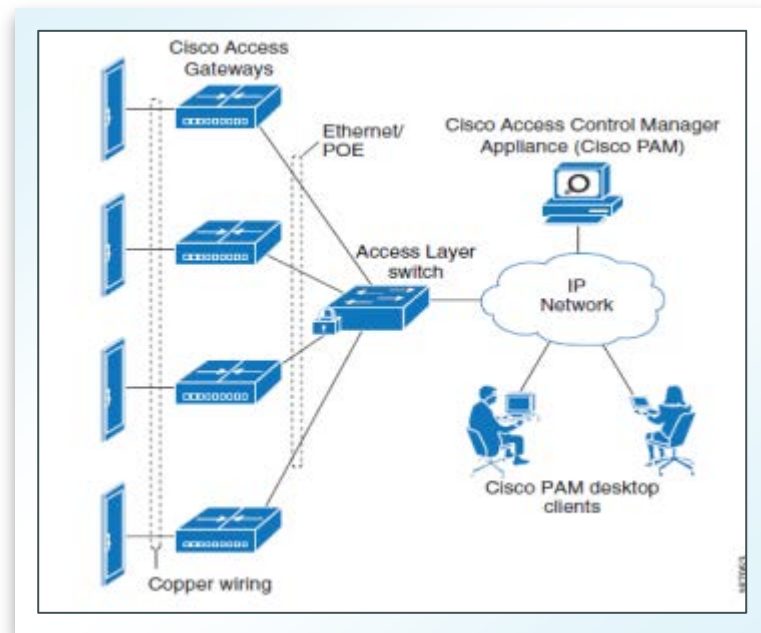
- Management application for configuring hardware, monitor activity, and enroll users
- Supports a comprehensive list of access control policies
- Easy integration with other IT systems
- Flexible reporting capability
- Easy access to video through integration with Cisco Video Surveillance Manager



Quick Launch Bar, Integrated Video

Cisco Physical Access Gateways

- Connects door locks and readers to the IP network
- Controls up to thousands of doors
- Directly configurable through a built-in Web server
- Supports offline operations if network connectivity is lost
- 250,000 credentials can be cached and encrypted
- 150,000 events can be buffered by the door





Incident Response

Cisco IPICS

IP Dispatch
Console



IPICS Server
Software



Mobile
Client App



IP Phone
PTT App



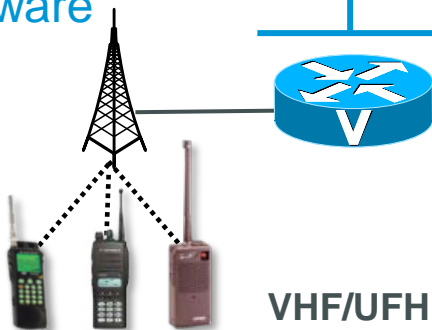
LMR Gateway
Software



Cisco IPICS
Software

Secure IP Network

Hardware



VHF/UHF
PTT Radios



1RU, 2RU Server Platforms
Scalable Storage,
Video Encoding

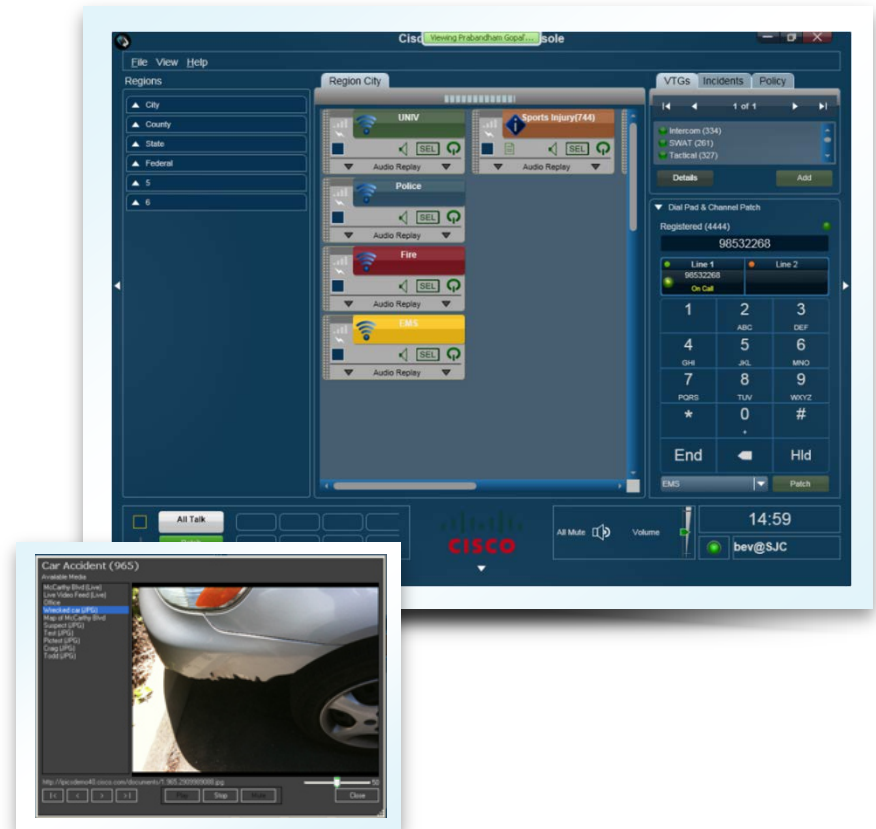


4–24 TB Flexible Storage

Physical Security
Multiservices Platform

Cisco IPICS Dispatch Console

- Communicate with onsite personnel using all media
- Push video images and data to first responders
- Collaborate with first responders and other organizations
- Use with any radio network for smooth evolution to new radio protocols (P25, Tetra)



Cisco IPICS Mobile Client

- App for Apple iPhone
- Integrated PTT with radio interoperability
- Rich-media incident management
 - Increased situational awareness
 - Increased collaboration: Citizens/others
 - View incidents, status, media
 - Receive/send video, images
- 3G and Wi-Fi support
- Secure access

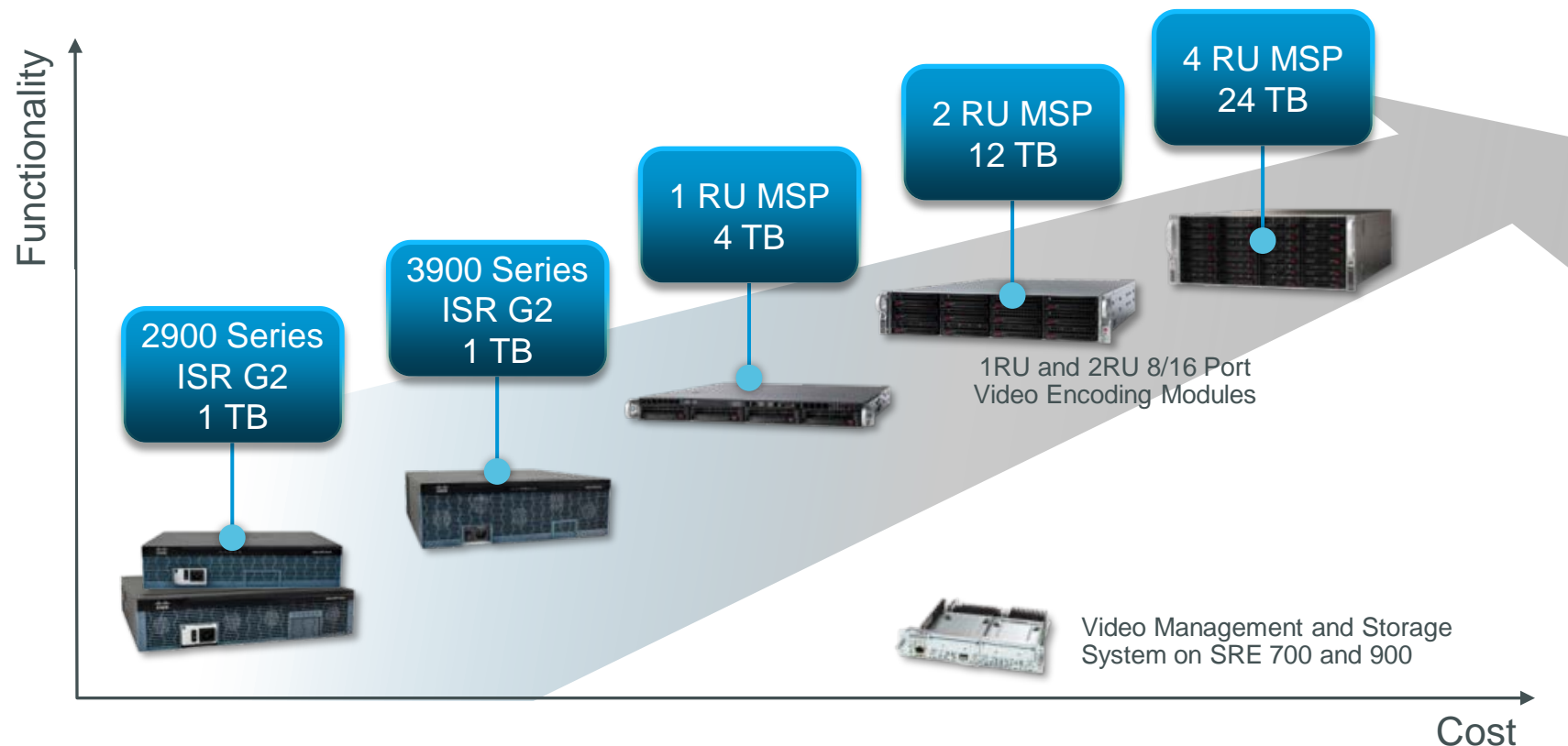




Connected Physical Security Solutions

Optimized IP Physical Security Solution

Cisco End-to-End Platforms



**Complete Portfolio of Cisco Physical Security Multiservices Platforms
for an Optimized IP Network and Physical Security Foundation**

Cisco Physical Security Operations Manager

- Scalable command and control interface that unifies Cisco Video Surveillance Manager, Physical Access Manager, and IPICS
- Improved security operations with unified command and control

Interactive maps

Control sensors and devices

Video matrix and guard tour

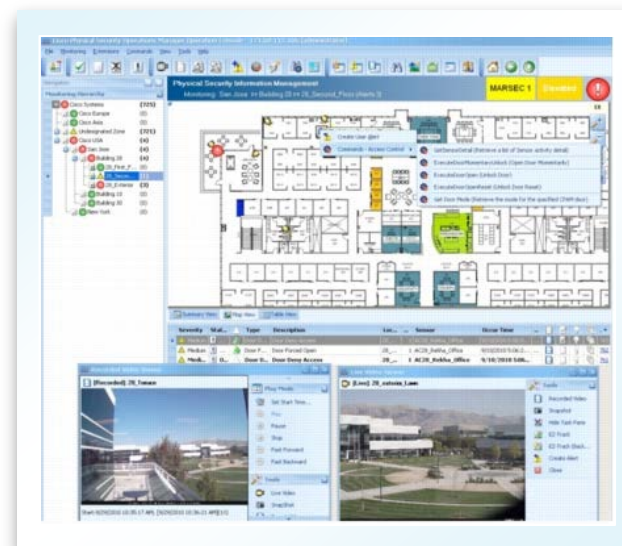
- Powerful incident management with policy-based event correlation

Correlates security events and alarms

Event-based video recording

Predefine operator tasks for events

- Advanced trend and incident reporting



- Video surveillance
- Access control
- Incident response
- Other systems



Industry Applications

Cisco Physical Security for Education

- Cisco IP Cameras
- Cisco Video Analytics



EDU Campus

- Cisco PSOM
- Cisco Video Surveillance
- Cisco Physical Access Control
- Cisco IPICS
- VSS Alloy

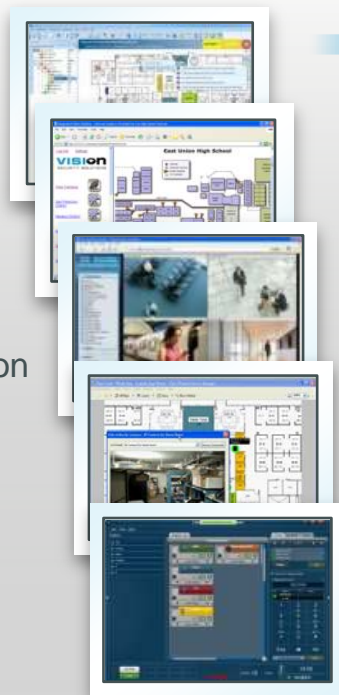
Automated
Workflow

Video
Paging

Collaboration

Lock Down

Response



“Active shooter.
All units respond.”



- IP speaker/intercom
- Email to employee
- Text to security
- Voice call
- Paging
- Radio alert
- Digital signs

Education Application

Identify and Help Reduce Loitering

Cisco 4000 Series IP Camera
with Cisco Video Analytics



Cisco Video Surveillance and
Cisco IPICS



- Effective campus safety
 - Enables safe learning
 - Provides unified security
 - Efficient use of IT network
 - Ease to use and operate
 - Lower costs

“Student in
restricted area.”



- Door annunciator
- Email to employee
- Text to security
- Voice call
- Paging
- Radio alert

Hospital Security Application

Secure Hospital Operations, Entrances/Exits, Visitor Areas

Cisco 4000 Series IP Camera
with Cisco Video Analytics



- Cisco PSOM
- Cisco Video Surveillance
- Cisco Physical Access Control
- Cisco IPICS

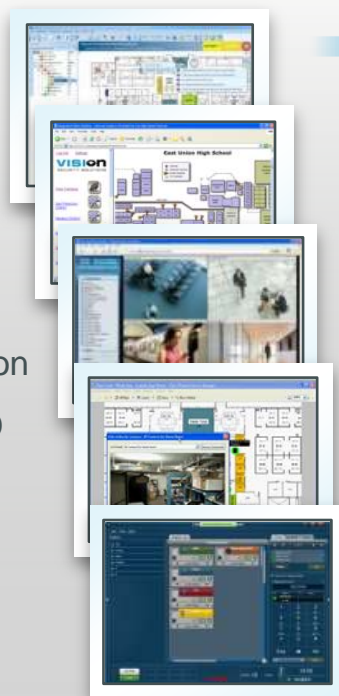
Automated
Workflow

Live/
Recorded
Video

Collaboration

Asset RFID
Newborn
Protection

Response



“Unauthorized entry
into emergency
room area.”



- IP speaker/intercom
- Email to employee
- Text to security
- Voice call
- Paging
- Radio alert
- Digital signs

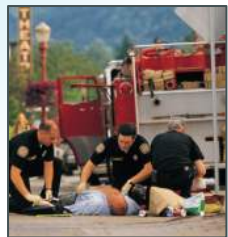
S+CC Application

Urban Security, City Surveillance, Emergency Response

- Cisco IP Cameras
- Cisco Video Analytics



911 Response



Transportation



- Cisco Video Surveillance
- Cisco IPICS
- Cisco Ecosystem Applications



- Effective public safety
 - Force multiplier
 - Deter crime
 - Safer community
 - Identify and prosecute
- Port/border security
- Traffic management

“Pedestrian traffic incident at 1st and Main.”



City Public Safety Command Center



- IP speaker/intercom
- Email to employee
- Text to security
- Voice call
- Paging
- Radio alert
- Digital signs



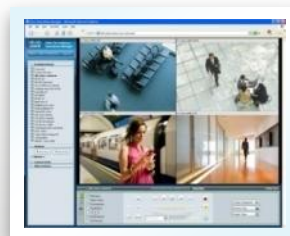
Financial Services/Banking Application

Secure Finance and Banking Operations

Cisco 4000 Series IP Camera
with Cisco Video Analytics



Cisco Video Surveillance and
Cisco IPICS



- Secure bank operations
- Boost profits
- Improve customer service
- Energy savings in building
- Improve marketing programs

“Remote banking
assistance needed
at area 1.”



Cisco Remote Loan Officer
Using TelePresence

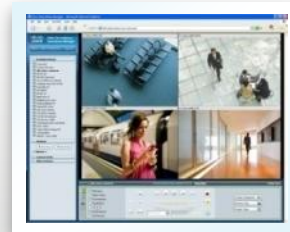
Retail Application

Improve Retail Store Operations

Cisco 4500 Series IP Camera
with Cisco Video Analytics



Cisco Video Surveillance and
Cisco IPICS



- Improve customer experience
- Boost profits/grow revenues
- Reduce shrink
- Point of sale video auditing
- PCI compliance
- Energy savings in buildings
- Improve marketing programs

“Customer in
electronics aisle
needs assistance.”



- Text
- iPhone PTT call
- Voice call
- Paging call
- Radio call

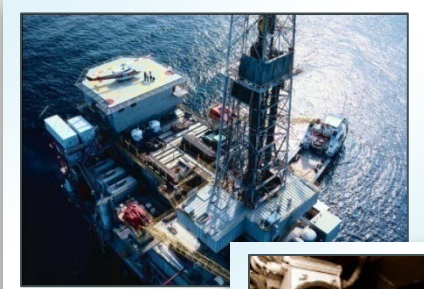
Energy Security Example

Remote Monitoring of Oil Pressure Gauges

Cisco 4000 Series IP Camera
with Cisco Video Analytics



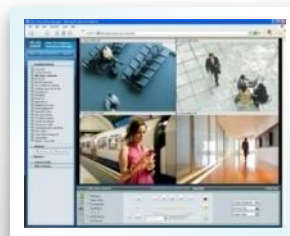
Oil Rig



Pressure
Gauge



Cisco Video Surveillance and
Cisco IPICS



- Remote platform monitoring
- Ensure secure operations
- Reduce lawsuits/costs
- Improve response

“Warning: Oil
pressure too high.”



- IP speaker/intercom
- Email to employee
- Text to security
- Voice call
- Paging
- Radio alert
- Digital signs

Enterprise Application

Identify Occupancy of Buildings, Rooms, Lobbies (Virtual Lobbies)

Cisco 4000 Series IP Camera
with Cisco Video Analytics



Cisco Video Surveillance and
Cisco IPICS



- Virtual Lobby Ambassador
- Energy savings in buildings
- Accurate occupancy counts/
usage/traffic for buildings
and rooms

“Three people in
lobby of building 10
need help.”



Cisco TelePresence
Virtual Lobby
Ambassador Solution

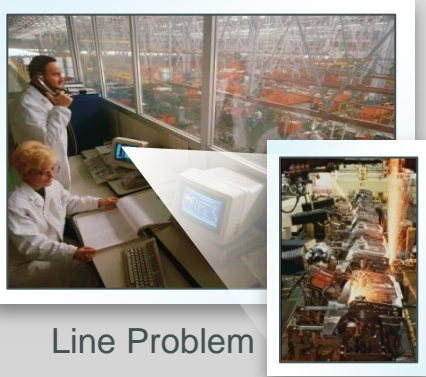
Manufacturing Application

Ensure Secure Manufacturing Operations

Cisco 4000 Series IP Camera
with Cisco Video Analytics



Manufacturing Operations



Line Problem

Cisco Video Surveillance and
Cisco IPICS



- Worker safety
- Ensure secure operations
- Reduce liability
- Improve response

“Malfunction:
Line stop in
sub-assembly area.”



- IP speaker/intercom
- Email to employee
- Text to security
- Voice call
- Paging
- Radio alert
- Digital signs

Why Cisco Physical Security Solutions?

Cisco Provides End-to-End Solution

Leverage Your Existing Network Investment

Investment Protection as You Migrate

Open Standards to Build
Best-of-Breed Solutions



Operational Flexibility

Lower Cost

Improved Detection,
Monitoring, Response

Centralized Management

Thank you.

