

Cisco Physical and Logical Security

Marty Knopert (mknopert@cisco.com)
Business Development Manager Physical Security Benelux

Guido Jouret © 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

2

What is Physical Security

- Physical security is the protection of personnel, and assets.
This includes protection from fire, natural disasters, burglary, theft, vandalism, and terrorism.
- The most important electronic measures are:
 - Video Surveillance (CCTV)
 - Electronic Access Control (EAC)
 - Intrusion Detection
 - Fire detection and evacuation systems

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

3

This is also physical security



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

4

What can improve physical security

- Electronic security measures
 - Video surveillance
 - Burglary alarm and perimeter detection
 - Electronic Access Control
- Architectural measures
 - Fences and barriers
 - Locks and safety glass
- Guards



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

5



Cisco Logical Security

Presentation_ID © 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

6

What is Logical Security

- Software safeguards for an organization's system including user ID and password access, authentication, access rights and authority levels. These measures are to ensure that only authorized users are able to perform actions or access information in a network

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

7

The Growing Need for Security Solutions

Regulatory Compliance



Data Loss



A Systems Approach to Streamline IT Risk Management for Security and Compliance

Threat Management



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

8

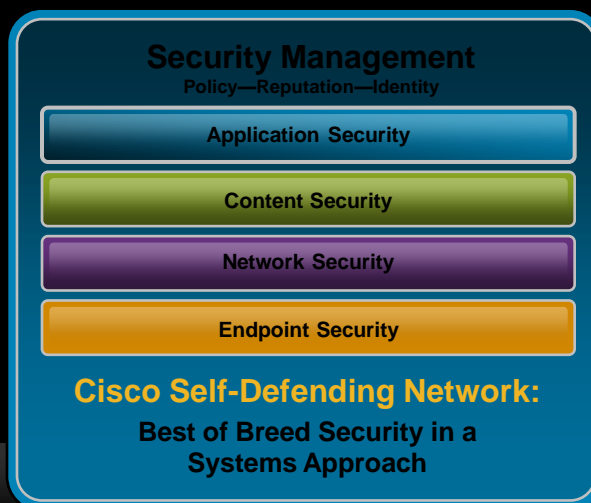
IP video surveillance threats

- Replace endpoint for another video feed
- Join or replace a multicast video stream
- Change parameters into the endpoints (camera's)
- Jamming the wireless signal on a wireless endpoint
- Intrusion on the network and modify/change settings
 - Network settings
 - Server's settings

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

9

Cisco Self-Defending Network



- Enforce business policies and protect critical assets
- Decrease IT administrative burden and reduce TCO
- Reduce security and compliance IT risk

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

10

Solutions for secure IP video surveillance

- Cisco Network Admission Control (NAC)
 - Securing both managed and unmanaged assets
 - Providing guest access and preventing unauthorized access
- Cisco Intrusion Prevention Systems
 - Scans all traffic using deep (packet-level) inspection
 - Accurate threat intelligence, which reduces false positives
- Cisco Access Control List
 - Filtering IP packets based on source and destination
- Multicast Source Discovery Protocol (ACL)
 - Redirects the right multicast group to the right destination
- Using IP video proxy server architecture



Cisco Physical Security

Why IP video surveillance

- Higher picture quality (HD 1080p)
- More scalable through the IP network
- End to End management of every device
- Seamless integration with other building systems (CRE)

Unified communication

Building Technologies

Security and Building Management Systems

DMS (Digital Media Signage)

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

13

Framework for Connected Real Estate

Transformation

Delivering space,
technology and
services differently

Convergence

Converging information,
communication and
building technologies

Foundation

Building the next
generation building
information network



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

14

Business drivers for physical security

- Reducing the costs to replace personal guards for HD surveillance camera's
- Cost savings by integrating the physical security into the network and centralize the Security Operation center
- Single point of management will decrease the TCO
- Use the IP surveillance solution for business intelligence using Video Content Analyses software
- Preventive effect

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

15

Cisco IP Video surveillance

- IP video surveillance camera's
 - Standard definition (SD) camera's with DVD quality
 - High definition (HD) camera's Full HD 1080p
- Video Management Platform
 - Open platform for IP video surveillance camera's
 - Complete appliances for management and storage up to 24TB
 - Out of the box integration with Cisco access control products
 - User-friendly web portal for instant access to the video streams



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

16

Cisco Video Surveillance IP Cameras

Perfect video within changeable light conditions

- **Full High Definition (HD) (1080p)**
- **Standard Definition (SD) DVD Quality**
- Wide Dynamic Range
- Wired and Wireless
- Network & Security Features
 - Power over Ethernet, IEEE 802.3af
 - AES Encryption, Hardware Acceleration
 - 802.1x Authentication
 - MPEG-4 (SD)
 - H.264 (HD)



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

17

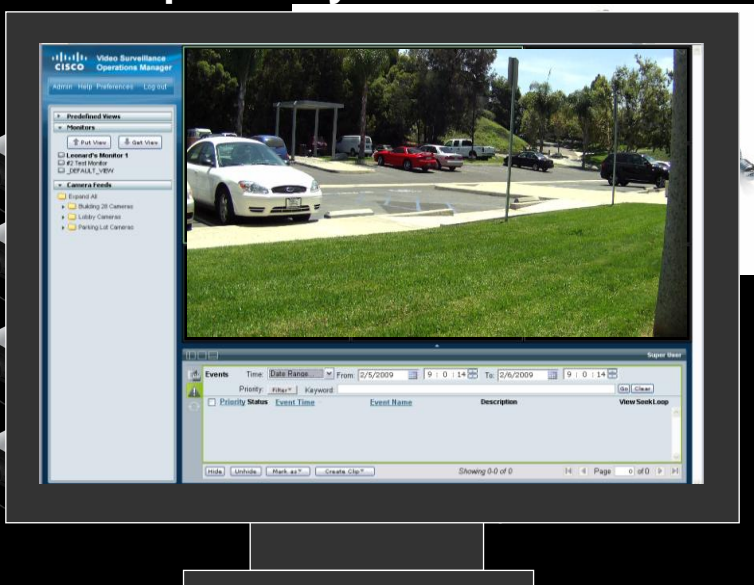
Video Surveillance Manager

- Open video management platform (no vendor lock)
- Single point of management
- User-friendly user interface
- Web-based
- Integrability within the Cisco ISR Router

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

18

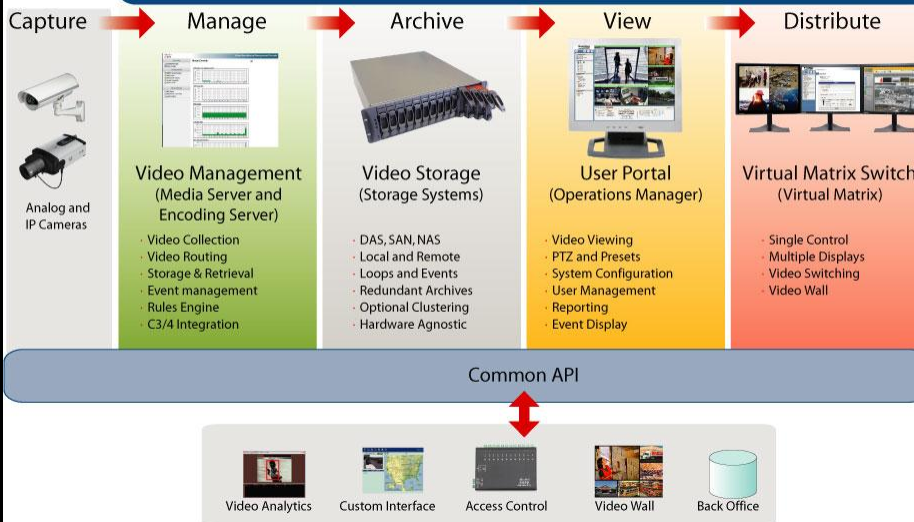
Simplified System overview



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

19

Cisco Video Surveillance Manager



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

20



Cisco Access Control

Presentation_ID © 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

21

Cisco Access Control and Management

- Access gateways direct attached to the network



- Physical Access Manager appliance
 - Full control of your access control system
 - Video Surveillance Manager integrated
 - User friendly user interface with floor plan navigation



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

22

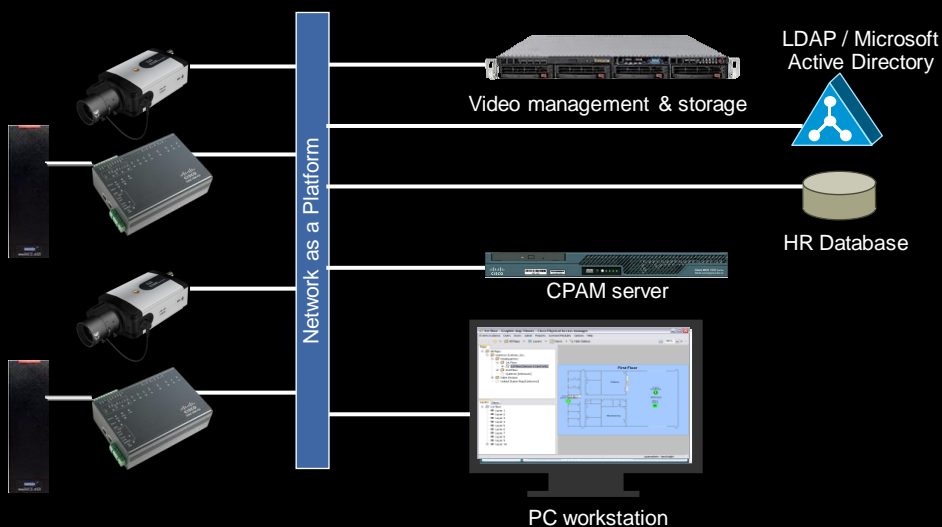
Cisco Access Control and Management

- 2500 access gateways per server (5000 doors)
- Fail-over server (optional)
- Badge design software integrated
- Full Power over Ethernet includes the electronic locks
- Integration of IP video surveillance
- Synchronizes with Active Directory or HR databases

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

23

Simplified System overview



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

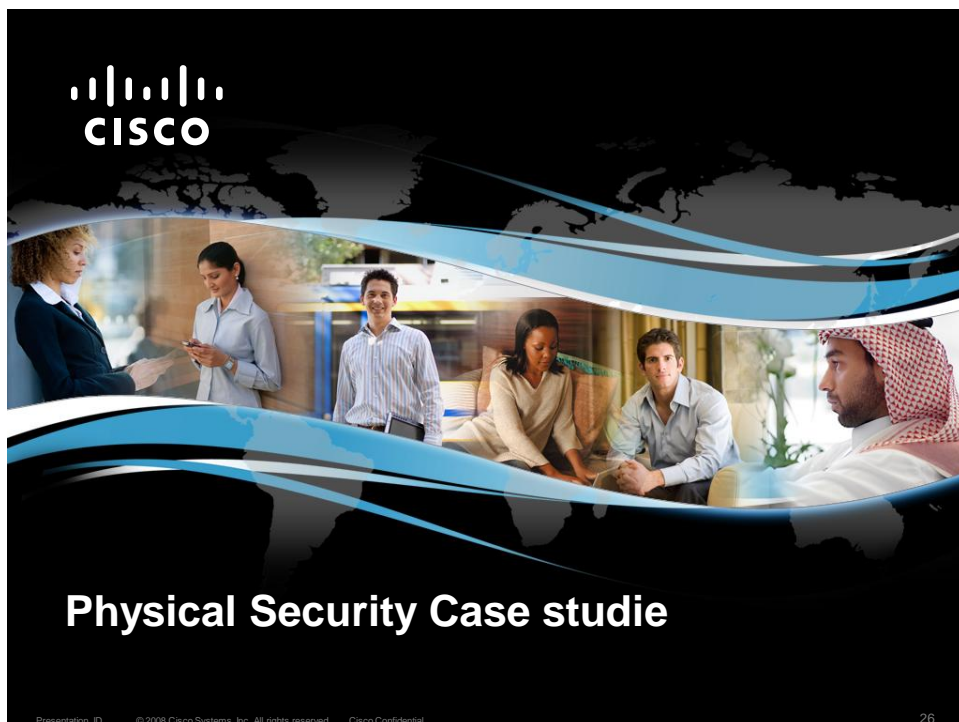
24

Summary

- The physical security can be improved by using IP video surveillance and Electronic Access Control
- The secured IP network is the platform to build physical security solutions with maximum flexibility and security
- Through centralization systems getting bigger, single point of management is a must a have
- Physical and Logical security are needed together in electronic physical security solutions

© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

25



The slide features the Cisco logo at the top left. Below it is a collage of business professionals in a meeting, with a blue wavy graphic overlaying the image. The text 'Physical Security Case studie' is prominently displayed at the bottom of the collage.

Physical Security Case studie

Presentation_ID © 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

26

Cisco Case Study

■ Inauguration of president Obama

Challenge

- Ensure smooth and orderly flow of people
- Deploy solution within weeks

SOLUTION

- Integrated three agencies' disparate cameras and encoders with Cisco Video Surveillance Manager and Cisco Video Surveillance Operations Manager

RESULTS

- Enabled interagency collaboration for crowd and traffic monitoring
- Provided early awareness of a potential traffic chokepoint
- Capitalized on existing camera and encoders, increasing their value



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

27

Next steps

- Deploy Cisco Video Surveillance Cameras. The city expects to double the number of surveillance cameras from today's 5400 to 10,000.
- Integrate Cisco Video Surveillance with gunshot location and detection systems.
- Monitor more areas of the city. The feeds will be monitored in the Unified Communications Center.



© 2008 Cisco Systems, Inc. All rights reserved. Cisco Confidential

28



© 2006 Cisco Systems, Inc. All rights reserved. Cisco Confidential

29