Video Surveillance Panel Discussion

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Why Video Surveillance for Ports and Marinas?

- Vandalism, grafitti and theft
- Access to gangways and docks
- Unauthorized access, drunk and disorderly, drug dealing
- Cash handling, customer service, fuel docks
- Tenant property (sinking boats, storm damage)
- Operations (hoists, dredges, docks)
- Parking violations, vehicle break-ins
- Weather and local conditions (fish cam, airport cam)

Analog DVR Solution

- ## Digital Video Recorder
  - PC with Capture Board
  - Hard disk recording
  - **NTSC (640x480)**
  - Older "PC" technology
  - Limited upgrade capabilities
    - Proprietary

- ## Analog CCTV cameras
  - Low cost, but low resolution
  - No on-board intelligence
  - Signal loss over distance
  - Large coax cable bundles

Digital IP Video Solution

- ## Network Video Recorder
  - Standard IT server
  - Highly expandable
  - Open System design

- ## IP Network Cameras
  - No limit on number of cameras
  - Megapixel resolution
  - No signal loss over the network
  - Edge-based intelligence
  - Analytics and specialty cameras

Cameras come in all shapes and capabilities

Panasonic WV-NF310

Axis 216MFD

Sony SNC DS110

ExtremeCCTV REG-L1 IP

Arecont 8360

Mobotix DualNight M12

IQEye 510

Arecont AV-2100

Axis 223M

Sony SNC RZ50N

Panasonic WV-NS202

Axis 212

What does it cost?

Cameras:	Analog	$150 – 400
	Digital	$400 – 1500
	PTZ (either analog or digital)	$1200 – 3200 based on features
Enclosures:	Box	$100 – 200
	Dome	Included with camera
	PTZ dome	$500
Network:	Wired	$200-300 per node
	Wireless	$400-1500 per node
Computer:	DVR	$1500 – 2000
	NVR (server)	$1500 – 5000
Software:	DVR	Usually included
	On camera recording*	Free, but limited capability
	Video management SW	$320 per channel
Installation:	Varies widely	Typically 1/3 total cost
Design, config, proj.mgmt	Varies widely	Typically 1/3 total cost

* Mobotix cameras only

Example: 6 cameras, 1 PTZ, hard-wired network   ~ $20k

Cost justification

- Reduced vandalism
- Liability protection (property, trip and fall, oil spills)
- Prosecute offenders
- Operational efficiency (less walking around)
- Government grants (TSA, Homeland Security, DOT)

Policy Issues

- Post "Video Surveillance in Use" signs
- Use a "Live" monitor in the harbor office for situational awareness
- Password controlled access for employees, job specific privileges
- Some sites will want public access through Internet: eg. Fish Cam
- If you have a camera and something happens, the public expects it to work!