

Video Technology Roundtable

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CCTV Today

- Hardware based
- Cameras connected to control system through coax cable
- Analog switching & control systems
- Digital recording capability (locally stored)
- Remote networking capability
- Security operator makes all decisions by observation
- Cumbersome event management, loose integration with other systems

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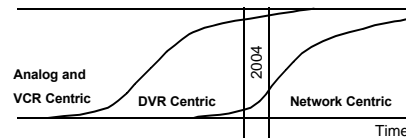
Trends

- Move to software based systems
- Twisted pair analog interfaces and IP Cameras
- Network Video Management System replacing analog switching and control systems
- Network Video Recorders (NVRs) replacing DVRs
- Fully IP based systems enabled by better compression technologies – MPEG-4 starting to dominate
- Intelligent systems, intelligent cameras
- Tightly integrated CCTV, access, fire, and intrusion, along with building management
- Sophisticated event management

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Network-Centric Systems

- The acceptance of Network Centric CCTV systems is rapidly growing in all regions of the world



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Intelligent Systems

- Intelligent systems begin with separate processing PCs: Object Video, ActivEye, Paramid Vision, etc.
- Detection of “anomalous events” – movement in wrong direction, crowd gathering, cars stopping along motorways, etc.
- Intelligence moving into cameras (integrated motion detection in cameras, e.g. Bosch DinionXF, integrated tracking in domes, e.g. AutoTracker)

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Intelligent Systems

- Intelligent CCTV systems moving beyond security
 - Traffic patterns in retail stores
 - Time spent at displays
 - Inventory monitoring
 - Worker productivity monitoring

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Improved Camera Performance

- Better sensitivity
- Higher resolution
 - IP cameras break limitations of PAL and NTSC – non interlaced, megapixel resolutions possible
- Improved dynamic range
- Improved backlight compensation
- Motion compensation
- Improved tracking
- Improved masking

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Summary

- Technology drivers for CCTV systems:
 - Streaming video, MPEG-4
 - Standards based IP technology
 - Continued demand for improved camera performance
 - Intelligent systems / video content analysis
 - Improved management and integration

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