

ASSET

PROTECTION

PEOPLE | PROPERTY | REPUTATION

March 10-13, 2013

Pointe Hilton Tapatio Cliff | Phoenix, AZ.

FMI



™

THE VOICE OF FOOD RETAIL 



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FMI Video Retail Trends Survey 2013

Trends and advanced functionality for AP



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Traditional video surveillance landscape

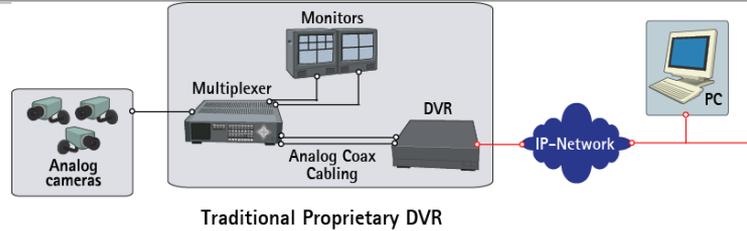
Whitepaper Process

- A request sent to FMI Asset Protection Council, Risk and Safety Committee in September of 2012
- Asked HOW they were using video across their departments and throughout the organization
- 32 out of 55 responded
- More than 50%
- FMI Believes the sample is representative of the food retailing industry as a whole.
- The survey gives a valid picture of the current landscape and the direction that the industry is heading.

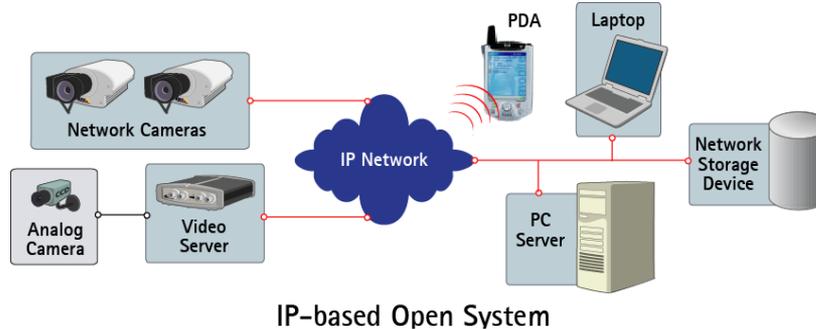


System Comparison

The world we know..



..is changing



What's driving retailers to IP/network video?



Already an application used for long time



High competition within the segment



Shrinkage (1.2-1.6%*)



Organized retail crime rings



Acceptance of (new) technologies



Ongoing technology shift towards IP



*Global Retail Theft Barometer 2011

Why network video for retailers?



Easy, future-proof integration



Integration with other retail systems



Established technology



Cost-effectiveness



Designed for scalability



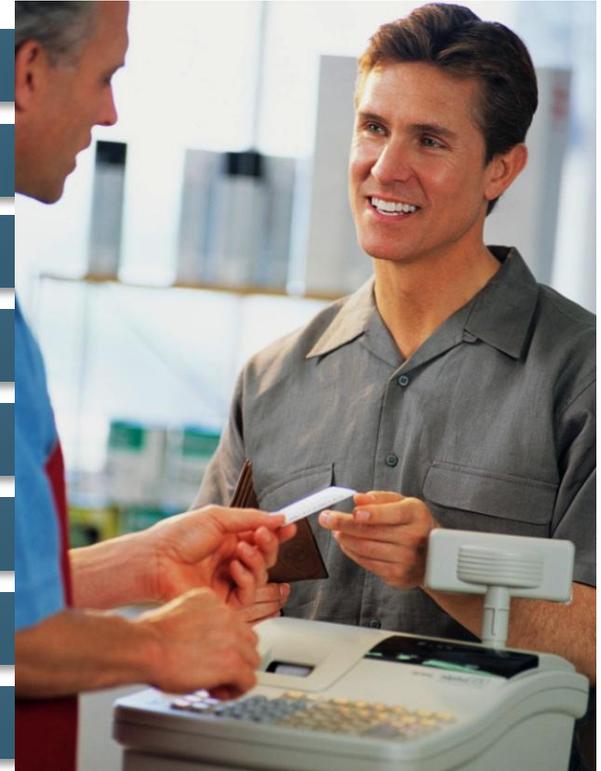
Performance – high quality video



Remote accessibility



Video analytics – smart cameras





One system – many stakeholders



One system – many stakeholders



One system – many stakeholders



One system – many stakeholders



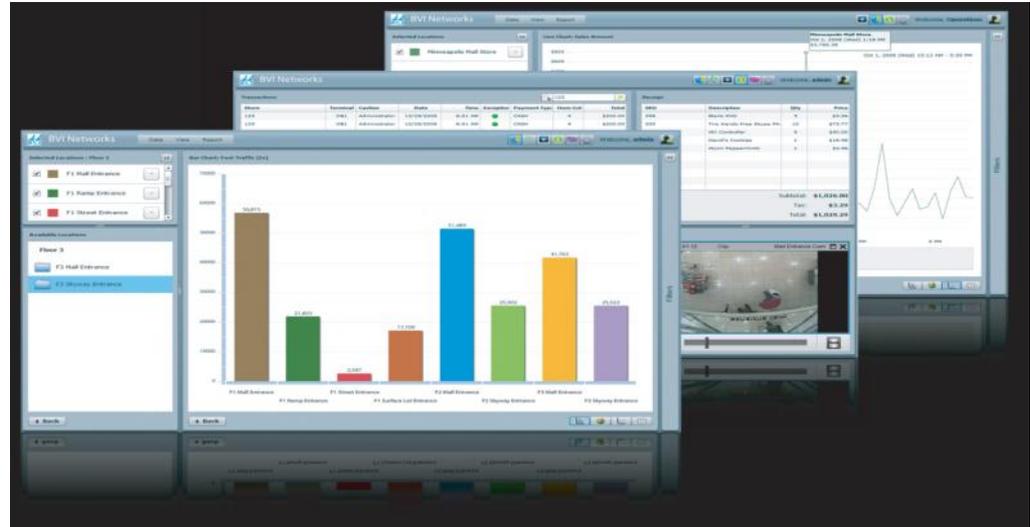
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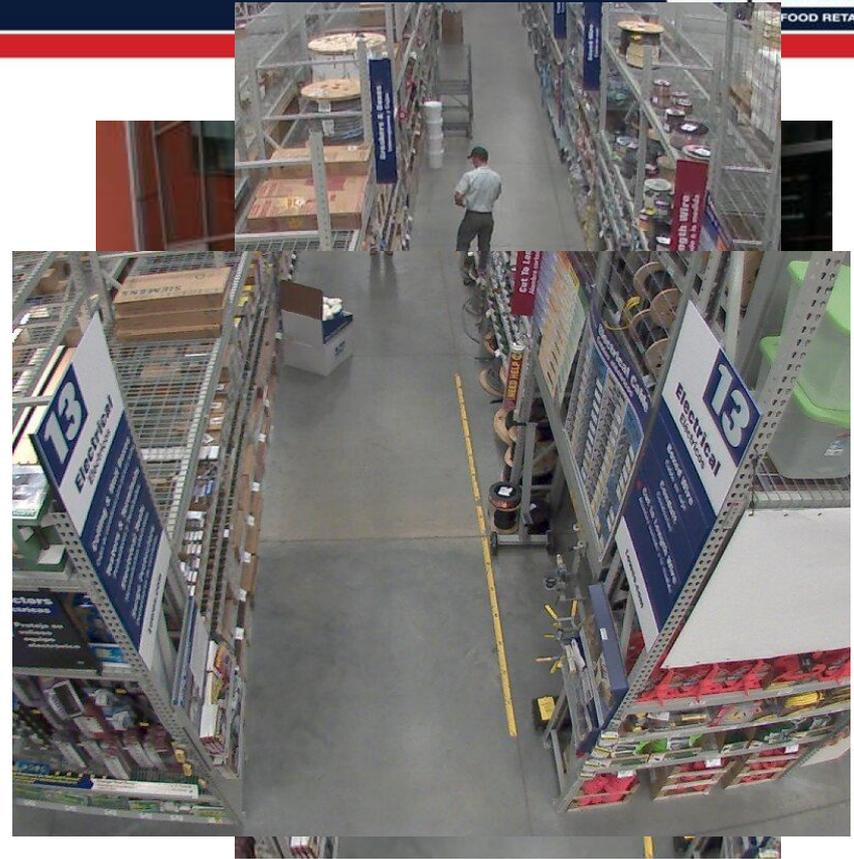
The Role of Video Content Analytics (VCA)

- People counting
- Queue counting
- Heatmaps/zone counting
- Demography
- Dwell time
- Scan avoidance
- Face detection
- Out of stock



Simple Solutions – examples

- Auto-tracking, enables a camera to automatically follow moving object
- People counting, object counting, dwell times
- License plate recognition
- Virtual fence, line-crossing
- Audio detection
- Active tampering alarm
- 9:16 aspect ratio for corridors and high racking shelves



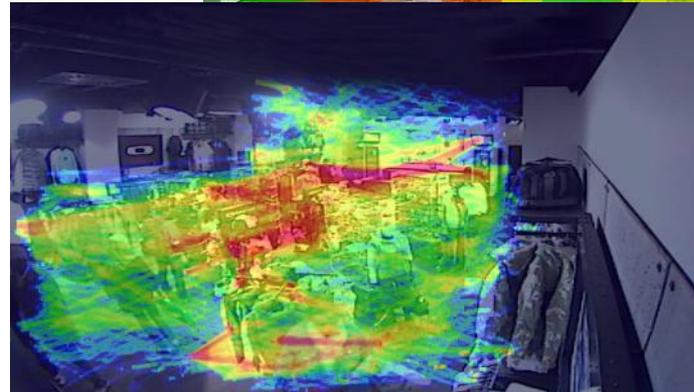
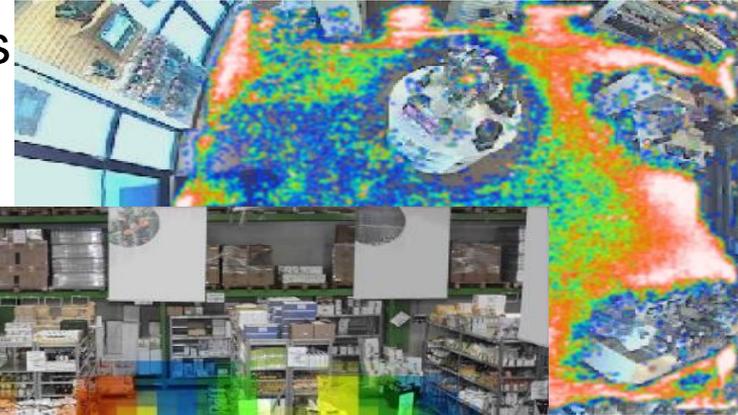
Measure store performance – network-based people counting

- Tracks number of customers
- Real-time data
- Integrate with the POS system
- Store optimization
 - Conversion rate
 - Customer flow analysis
 - Space value
- Improved customer service
 - Optimizing staff deployment
 - Hours of operation
- Improve marketing and promotions efforts
 - Marketing evaluation
 - Displays and end-caps



Network video for sales & marketing – heat maps

- Optimize store layout
 - Visualize hot and cold zones
- Record customer interactions at displays
- Test, evaluate, and compare merchandising and marketing initiatives for single or multiple stores
- Measure customer traffic patterns
- Immediately evaluate floor changes



Queue management

- Measure performance against customer service KPIs
- Put staff in control of queuing issues
- Real-time alerts when queues exceed predefined thresholds
- Understand the customer traffic at check-out points and product counters across time
- Strategically allocate human resources across the store and organization



Operations

- Other applications
 - DSD - Conducting remote receiving and audits via HDTV and audio over the network
 - Monitor coolers and freezers for temperature readings and leaks
- 93% of retailers who use video for cross-functional purposes are seeing a positive impact on operations*

*LPRC survey CCTV in Retail 2012



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Trends and advanced functionality for AP

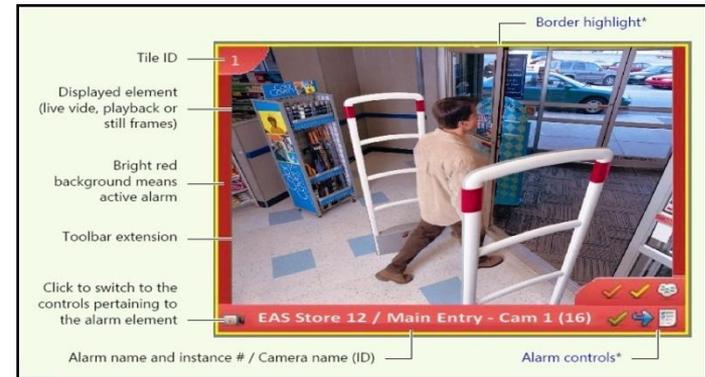
Network video for safety and security – traditional use cases

- Workplace violence
- License plate recognition for identification of suspects
- Parking lot surveillance
- Entries and emergency exits
- Slip and fall claims
- Continuous and event-driven video surveillance
- Investigate crime and identify suspects



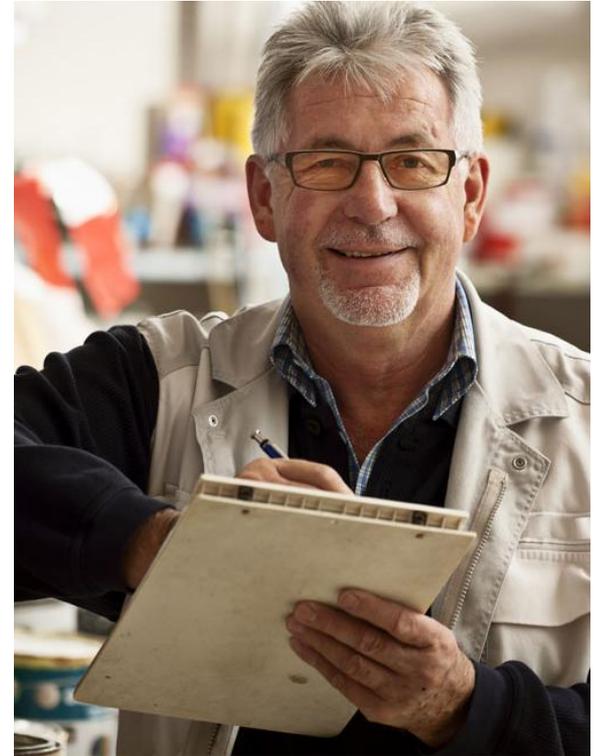
Reduce investigation time – EAS integration

- Electronic Article Surveillance (EAS) integration
- Immediate alert
- Easy search, analysis and documentation
- Complete coverage of incidents
 - Activates alarm
 - Trigger video recording
- High image quality
- Reduced investigation time and costs
- Local and remote access to real-time data

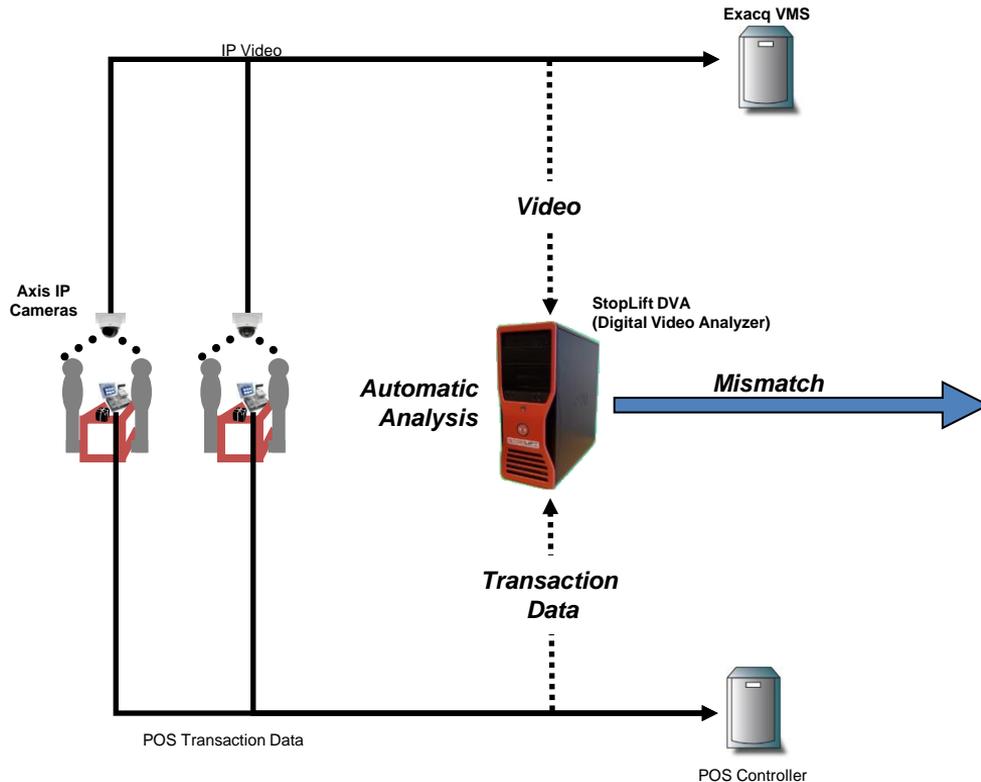


Video monitoring of distribution and transportation

- Protection and safety of associates
- Monitoring time clocks, aisles, exit/entry points and loading docks for safety and compliance
- Accident investigations
- Truck lot surveillance and license plate recognition
- Warehouse injury investigations
- Forklift operating safety
- Ensuring correct safety and product handling procedures for loading and unloading
- Unattended deliveries
- In-truck surveillance



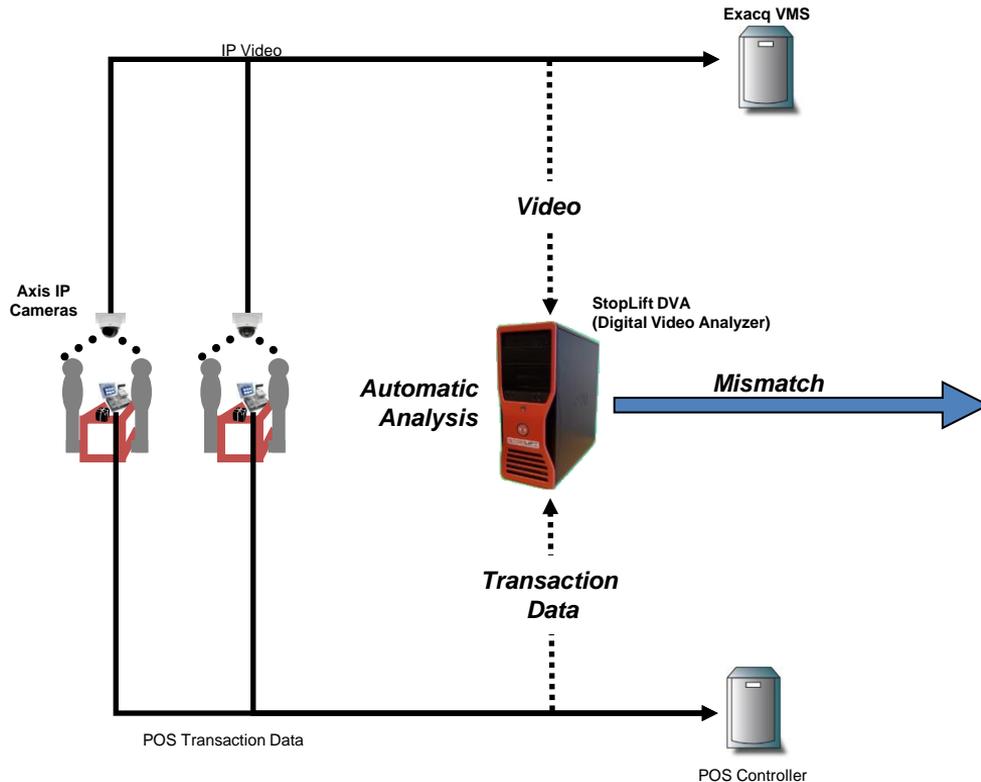
Case Example: Scan-Avoidance & BOB/MOB Detection at Big Y



Transaction Video: 413 - recycle bags, misscans no reattempts

Description	Price	Qty	Time
✘ MissedNotReattempted Incident	\$ 3.79	-	14:08:52
✘ MissedNotReattempted Incident	\$ 3.79	-	14:08:53
✘ MissedNotReattempted Incident	\$ 3.79	-	14:08:55
4103 Braeburn Appl	\$ 2.22	1	14:09:06
4023 Red Seedless	\$ 7.21	1	14:09:11
4023 Red Seedless	\$ 4.69	1	14:09:14

Case Example: Scan-Avoidance & BOB/MOB Detection at Big Y



Transaction Video: 413 - recycle bags,misscans no reattempts

The screenshot shows a video player interface with a video of a checkout incident. The video shows a customer at a checkout counter with a cashier. The customer is seen scanning items, and the cashier is seen handling the items. The video player includes a progress bar and playback controls.

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Implications for scalability

Bandwidth and storage

- H.264 compression and hosted video
- Edge performance and advanced functionality
- Cloud, network attached storage (NAS) and Edge storage



Infrastructure

- Ethernet over coax
- Go green with less power consumption (PoE)
- Potentially fewer cameras
- Economy of scale with shared infrastructure



Lighting concerns

- Lighting concerns continue to be an issue for food retailers
- Need for affordable, innovative cameras for all applications:
 - Low light
 - No light (thermal/infrared)
 - Intense backlighting (enhanced Wide Dynamic Capture)



Cloud solution for retail chains – Integration and applications

- Single or multiple retail sites/stores
- Recording either remote, local or a combination
- Remote live video access to all connected stores
- Remote access to all recorded material/footage
- Possible integration with
 - POS exception reporting tools
 - People counting solutions
- Trouble-free and always accessible surveillance
- Live view, recordings and notifications directly in a PC or mobile phone browser
- Low cost of ownership with fixed service rate
 - No DVR or storage needed
 - No cabling and certified electrician needed
- No network configuration needed



Mobile applications and remote access

- More functionality being pushed to mobile devices.
- Mobile POS applications with RFID, POS and other technology partners are on their way.
- Big Data!
- H264 to reduce bandwidth
- Android and Apple OS
- In-store access as well as remote
- Law Enforcement Access



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Questions?

Thank you!