

# ASSET

# PROTECTION

**PEOPLE | PROPERTY | REPUTATION**

March 10-13, 2013

Pointe Hilton Tapatio Cliff | Phoenix, AZ.

**FMI**



™

THE VOICE OF FOOD RETAIL 





# FMI Video Retail Trends Survey 2013

Trends and advanced functionality for AP





# ASSET

# PROTECTION

Traditional video surveillance landscape



## Whitepaper Process

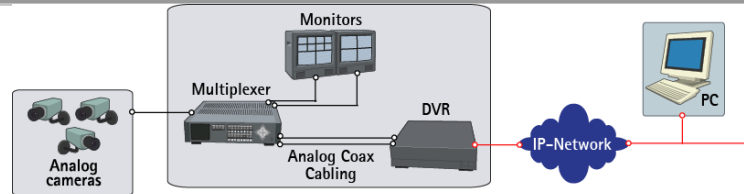
- A request sent to FMI Asset Protection Council, Risk and Safety Committee in September of 2012
- Asked HOW they were using video across their departments and throughout the organization
- 32 out of 55 responded
- More than 50%
- FMI Believes the sample is representative of the food retailing industry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





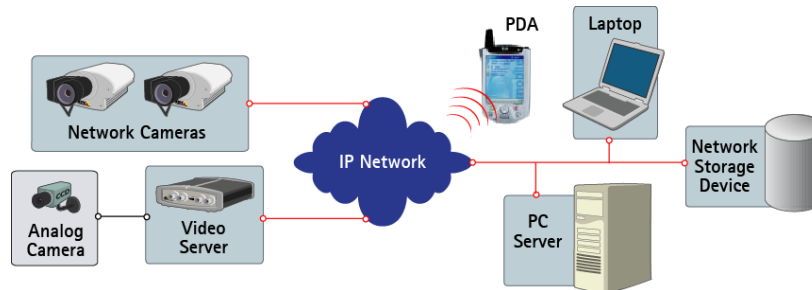
## System Comparison

The world we know..



Traditional Proprietary DVR

..is changing



IP-based Open System



## 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





One system – many stakeholders



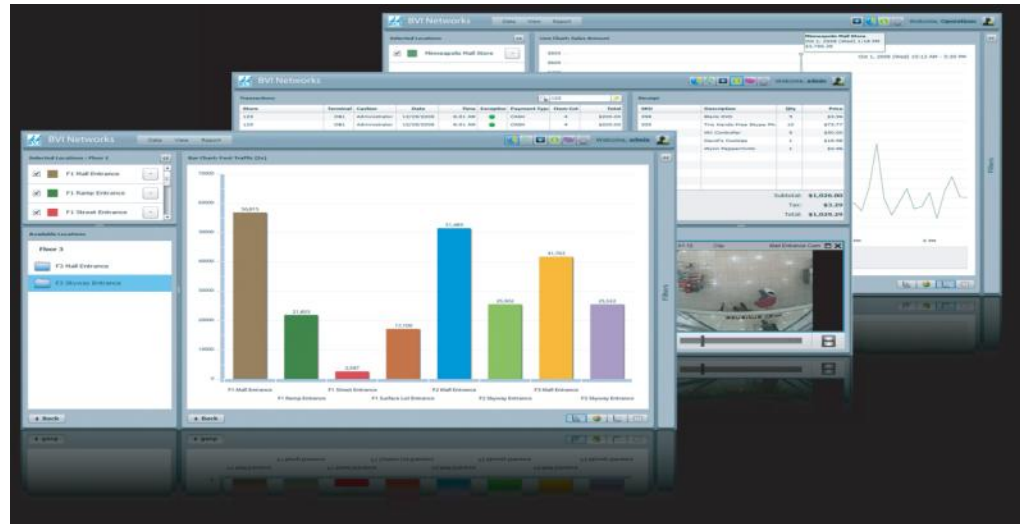


One system – many stakeholders



## The Role of Video Content Analytics (VCA)

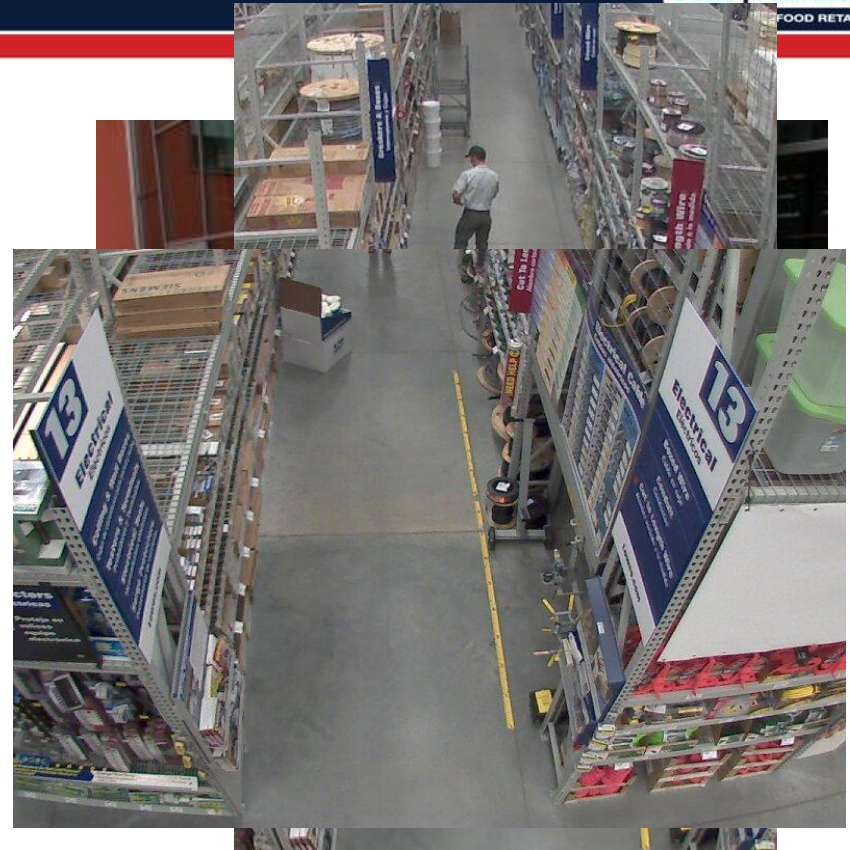
- People counting
- Queue counting
- Heatmaps/zone counting
- Demography
- Dwell time
- Scan avoidance
- Face detection
- Out of stock





## 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

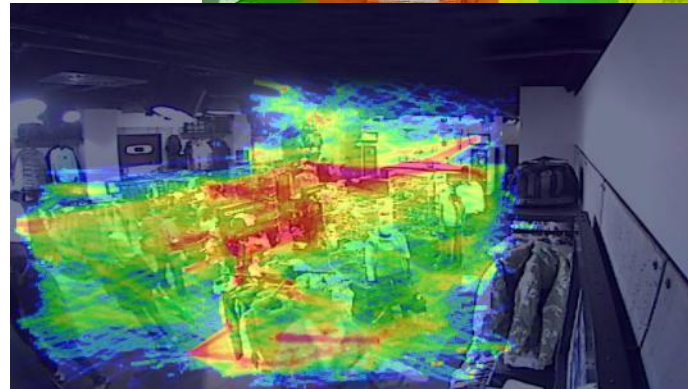
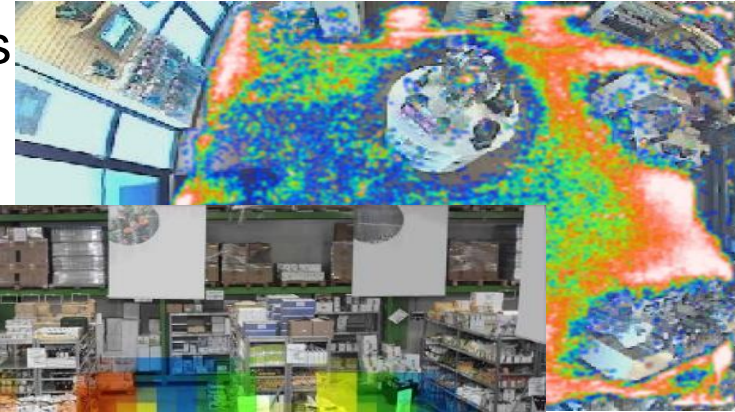
- Tracks number of customers
- Real-time data
- Integrate with the POS system
- Store optimization
  - Conversion rate
  - Customer flow analysis
  - Space value
- Improved customer service
  - Optimizing staff deployment
  - Hours of operation
- Improve marketing and promotions efforts
  - Marketing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





The logo features the words "ASSET" and "PROTECTION" in a bold, white, sans-serif font. "ASSET" is on the top line and "PROTECTION" is on the bottom line. They are separated by a vertical red bar. The text is set against a dark blue background with horizontal red bars. The entire logo is overlaid on a blurred, abstract image of a modern building with glass and steel.

# ASSET

# PROTECTION

Trends and advanced functionality for AP



## Network video for safety and security – traditional use cases

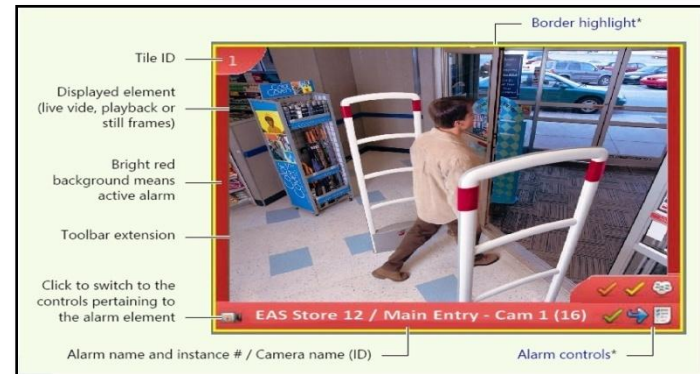
- Workplace violence
- License plate recognition for identification of suspects
- Parking lot surveillance
- Entries and emergency exits
- Slip and fall claims
- Continuous and event-driven video surveillance
- Investigate crime and identify suspects





## 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





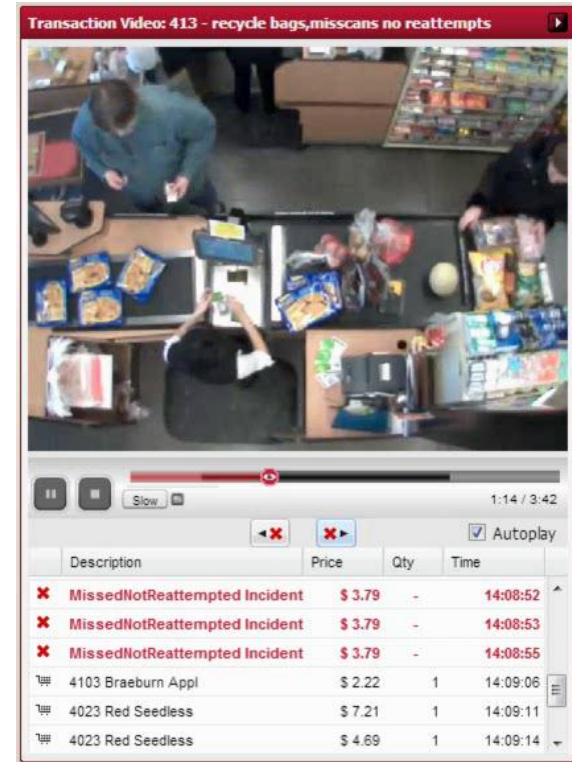
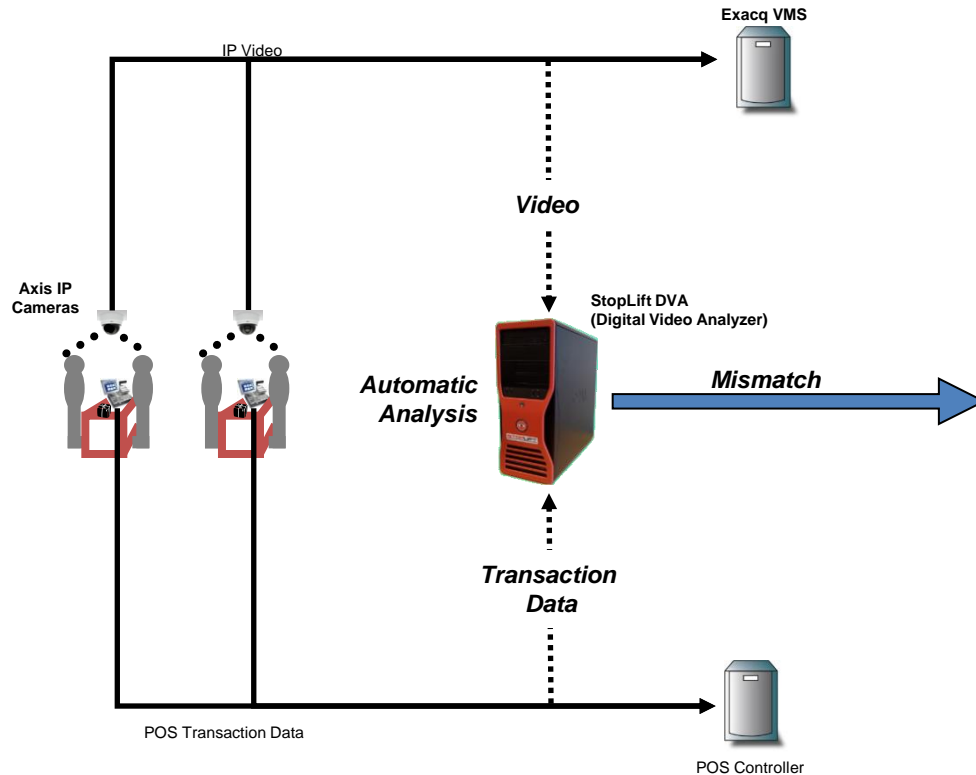
## Video monitoring of distribution and transportation

- 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



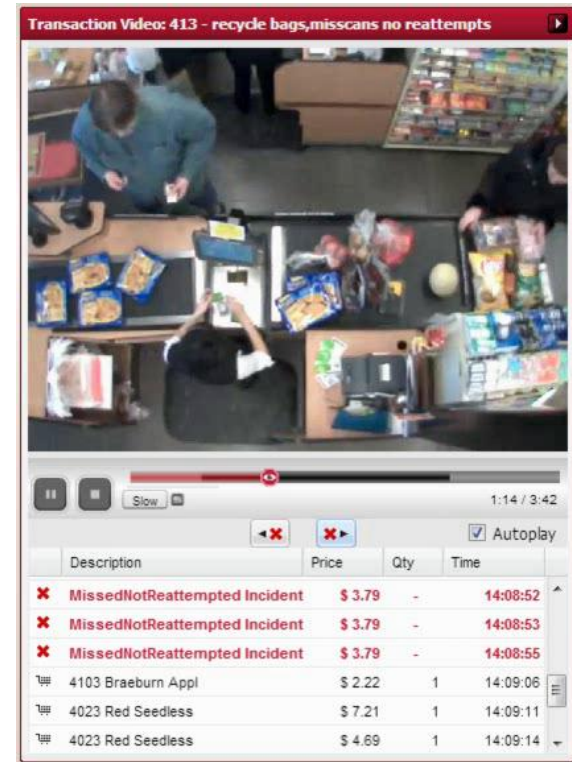
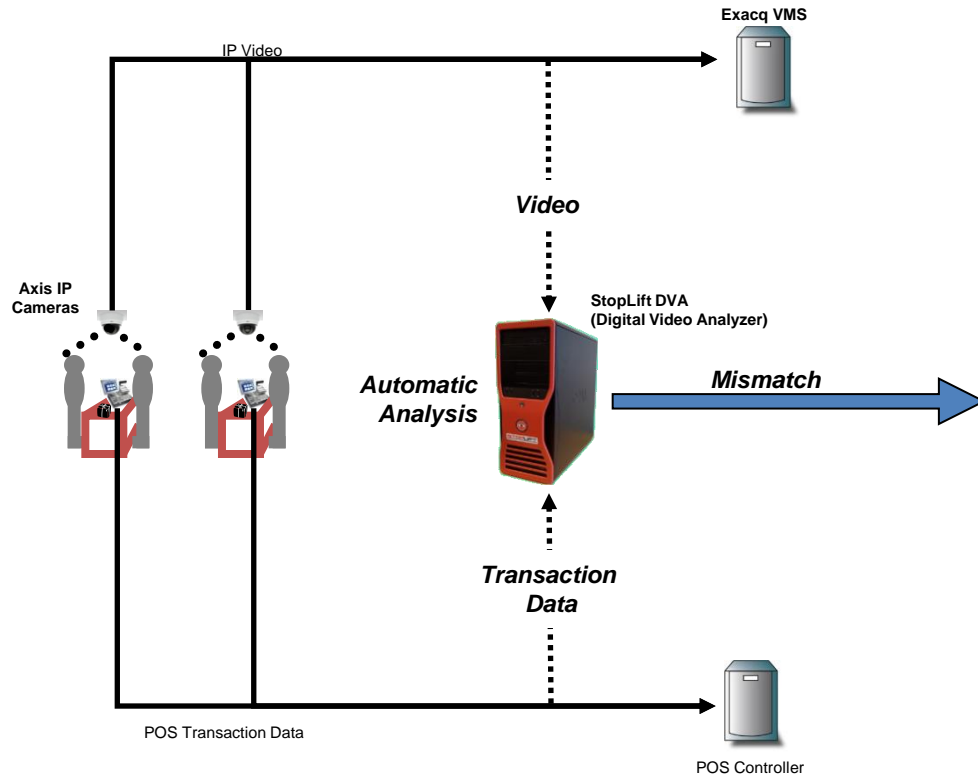


## Case Example: Scan-Avoidance & BOB/MOB Detection at Big Y





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





The logo features the word "ASSET" in large, bold, white capital letters on a dark blue background. To the right of "ASSET" is a vertical red bar. Below "ASSET" and to the right of the red bar is the word "PROTECTION" in white capital letters. The background of the logo is a collage of abstract, blurred images in shades of blue and red, suggesting motion or technology.

# ASSET

# PROTECTION

Implications for scalability



## Bandwidth and storage

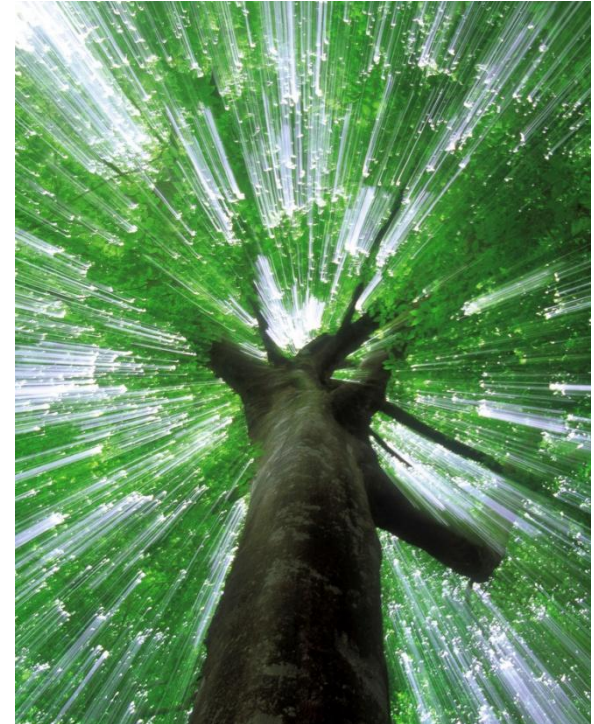
- H.264 compression and hosted video
- Edge performance and advanced functionality
- Cloud, network attached storage (NAS) and Edge storage





## 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

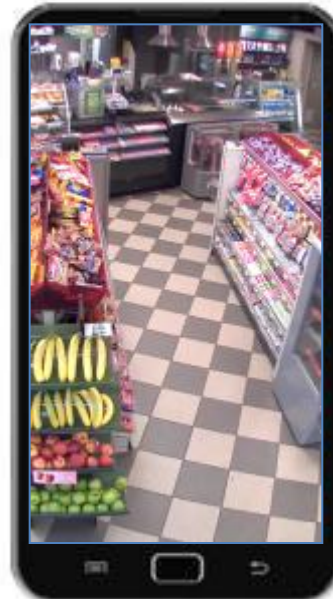
- Single or multiple retail sites/stores
- Recording either remote, local or a combination
- Remote live video access to all connected stores
- Remote access to all recorded material/footage
- Possible integration with
  - POS exception reporting tools
  - People counting solutions
- Trouble-free and 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







# ASSET PROTECTION

Questions?

Thank you!