



# “Scalability of Video & Behavioral Analytics™ in Large Complex Deployments”



# Behavioral Recognition Systems, Inc. (BRS Labs)

- So many cameras.....
- Managing the video surveillance systems
  - PISM
  - VMS
  - Video analytics
- Manageable, relevant intelligence is critical to an effective security operation



# \$250K in copper stolen from Seattle rail tunnel

May 12, 2012



***More*** than **\$1 billion** worth of ***copper*** is ***stolen*** each year in the ***United States***, according to the U.S. Energy Department

# The Washington Post



May 29, 2012 - ***Metro worker hit by train in rail yard; is in critical condition...***



# Rail Environment – Facts:

- In terms of people traffic, ***One morning*** commute at ***Penn Station*** in NY ***equates*** to ***2.5 days*** at ***Chicago O’Hare Airport***
- ***Thousands of cameras*** are being installed in rail systems
  - ***Guards*** have a ***22 minute*** effectiveness in an ***8 hour day***
  - ***Technology*** is key to ***monitoring*** cameras ***effectively***
  - Multiple layers of ***security*** with human intervention ***needed***
- ***Rail Security*** is not front-loaded as in airports but have ***multiple entrances***
- ***Major security issues***
  - Track intrusion
  - Baggage unattended
  - Graffiti
  - Vandalism (copper, car-break-ins etc.)
  - Loitering
  - Criminal activity

# Technology Issues

- Video Surveillance systems
  - ***PISM, VMS, Video Analytics, Cameras***
- Major projects underway for each of the technologies
  - ***Amtrak, MBTA, LA Metro, Chicago Metra, WMATA, SF MTA***
- Key issues to look for in purchasing:
  - PISM
    - Need to be ***operational day 366*** with multiple version changes
    - How many ***integrations are completed*** vs. work in progress
    - Open architecture vs. Closed solution – critical for integration issues
    - Make sure you have the ***staff to implement*** system/not plug & play

# Technology Issues

- VMS
  - Open architecture vs. Closed solution
  - Does vendor have **integration agreements** with third-party vendors
  - **Robustness & scalability**
  - Hardware requirements
- Video Analytics
  - **Rules based analytics** has **failed** miserably – market decision
  - Systems must **have relevant alerts** and **manageable alert levels**
  - Systems must **use full field of view** of cameras
  - **Support staff** is critical – not plug & play
  - **Customer references** with similar environments
  - **Integration agreements** – “coming soon” only works at the movies
  - **Alert trends analysis** – Risk assessment reports













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# Challenges with Rules-Based Analytics

- Maintenance
  - Installation Time/Costs
- Validity of Alarms/Alert Volume
  - Pre-determined Rules
- Limited Field-of-View Analysis (to decrease false alarms)

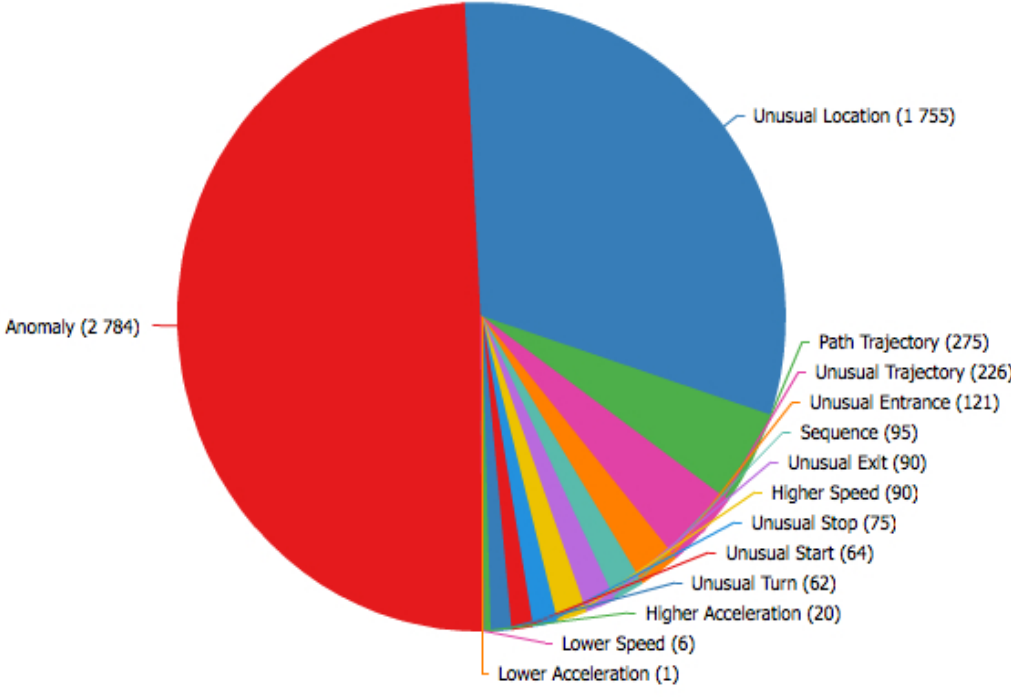
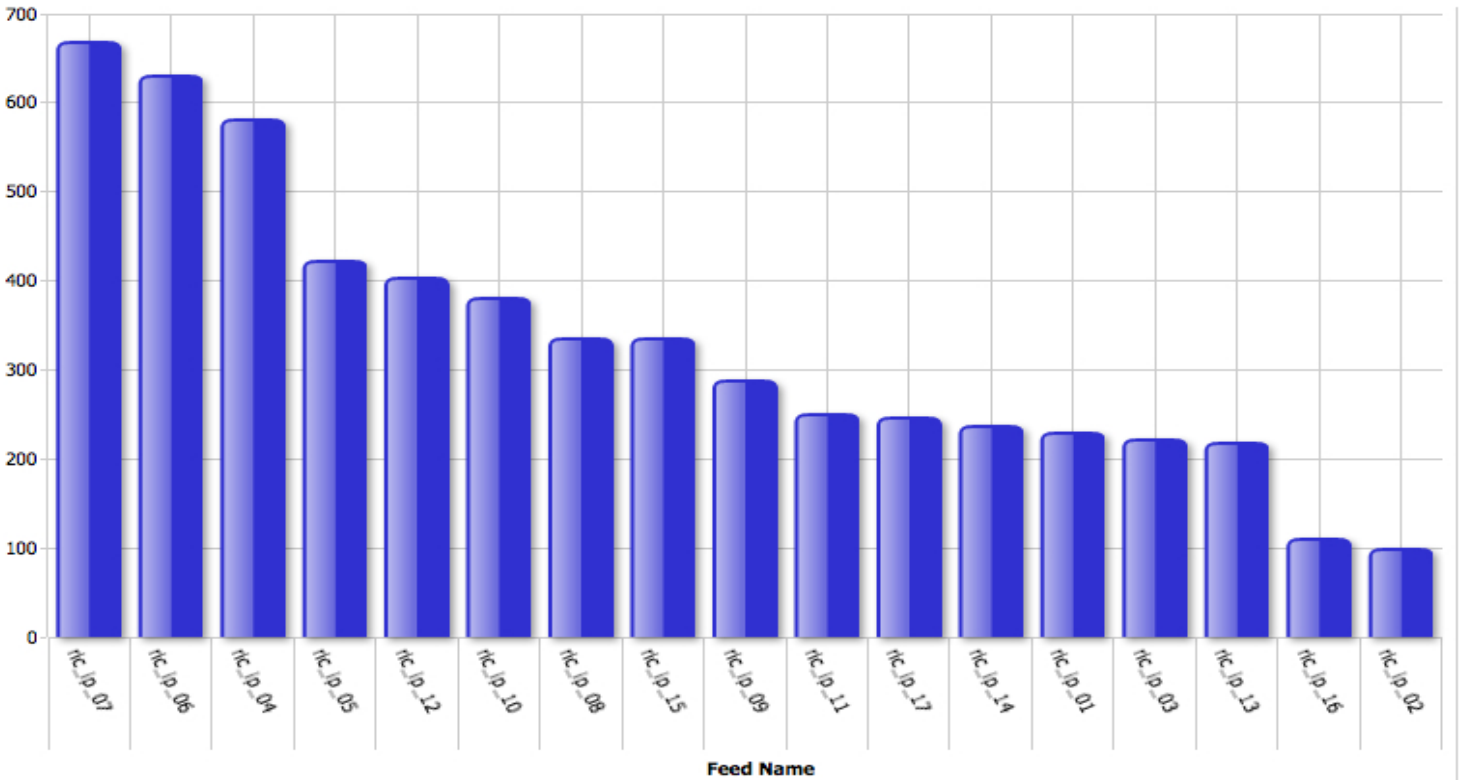
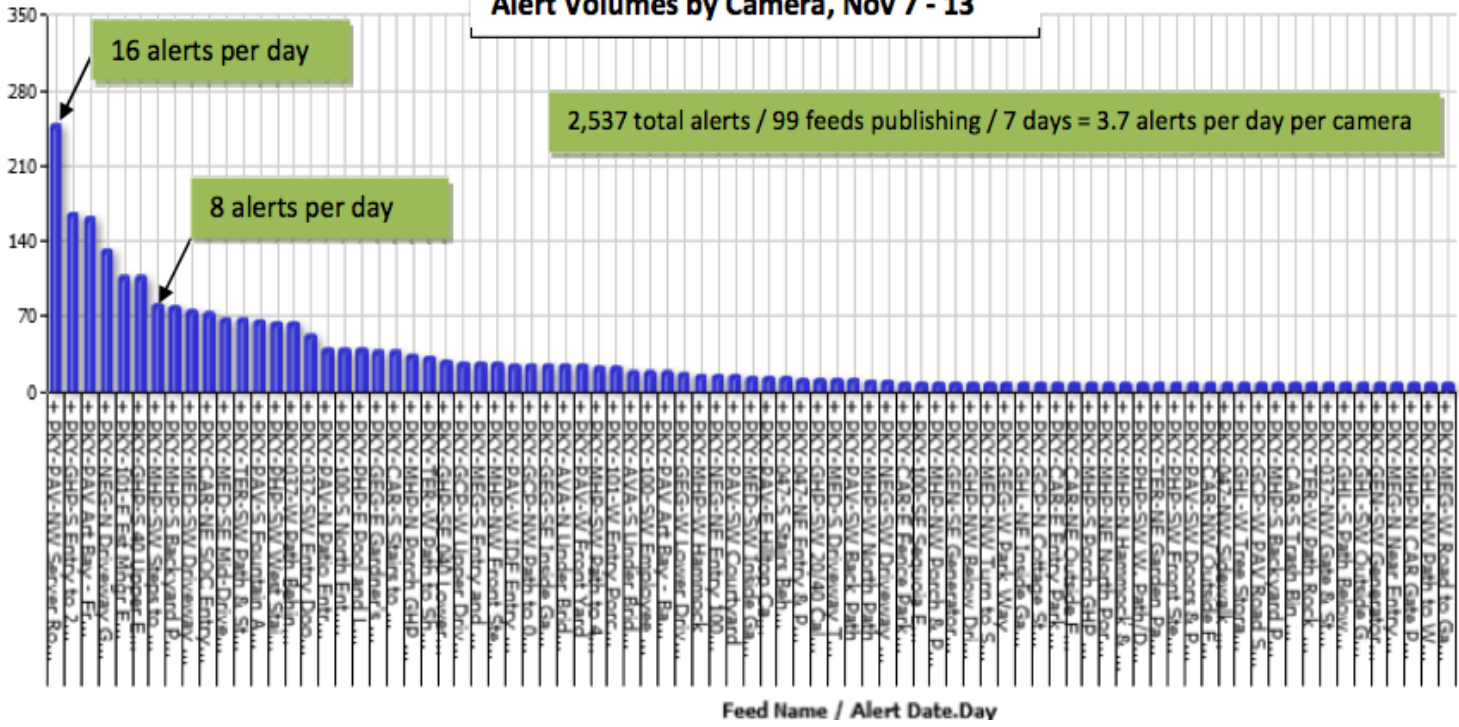


**What are you missing?**



# Technology Issues

Alert Volumes by Camera, Nov 7 - 13





# Summary

In a Nutshell:

- Systems must provide ***relevant intelligence***
- ***Integration*** – not “seamless” /do the research
- ***Support staff*** for both vendor & customer is critical to success
- ***Success criteria*** for solution
- ***Proof of concept must be meaningful***/small POC usually fails
- Open architecture vs. silo solution