Florida Department of Transportation

Who's watching the cash register?

Taking Lane Monitoring and Analysis to the Next Level!

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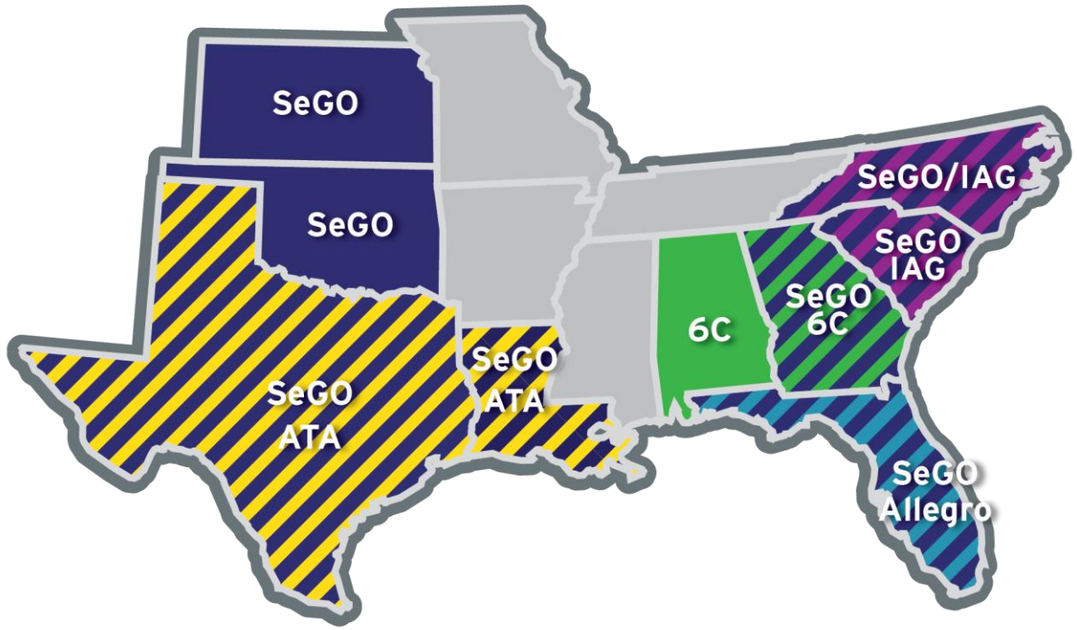
FTE Interoperability Overview

- Tag swap
- 6C- Neology License
- Tri-protocol Reader
- Southern Interoperability



Interoperability Drives Need For Oversight

- Increasing automation for non-cash customers
- Premium on lane performance, not just availability
- Direct and indirect effects of lane performance on bottom line
- New technology = possible new issues may arise affecting performance
  - Interoperable AVI readers and transponders
  - Handling interoperable transponder and license plate lists

The Solution

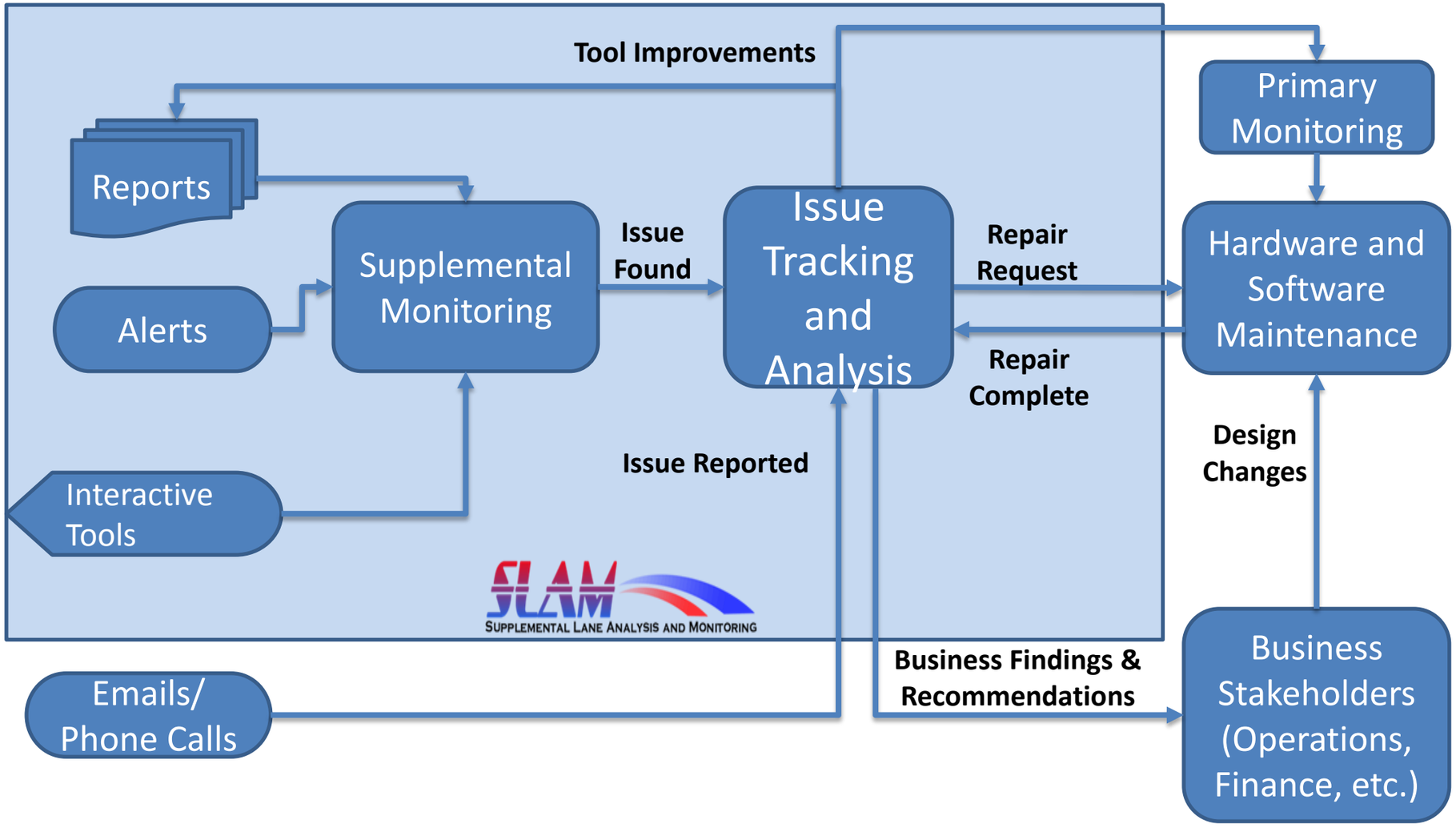
- SLAM = Supplemental Lane Analysis & Monitoring

  “Customer, revenue and brand protection through consistent performance monitoring, in-depth analysis, and diligent issue resolution”

Primary Monitoring vs. SLAM

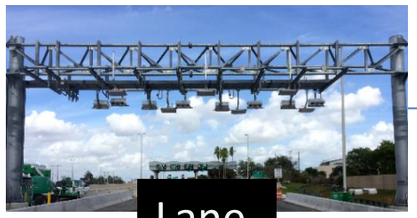
Primary Monitoring	SLAM
24 x 7 System Monitoring	Daily Monitoring
Focus on “hard” Failures	Focus on sub-optimal performance, repeating failures, business rules
Respond to system-generated alerts (MOMS, etc.)	Analyze daily reports and trend data to ID issues
Dispatch technicians	Determine root causes
Manage & verify repairs	Interface with other organizations to effect repairs, design improvements

SLAM Workflow



Planning Workshop

Metrics Monitor The Whole Processing Chain



Lane

Plaza

Transaction Host

Back Office- Accounts

- Rejected Transactions

Video Tolls Processing

- Rejected Transactions
- Manual Image Review Reject % By Reason

- Front Image Capture %
- Rear Image Capture %
  AVI Only %
- ETC %
- AVI Write Failure %
- Not on List %
- Straddle %
- POS List Timestamp Age

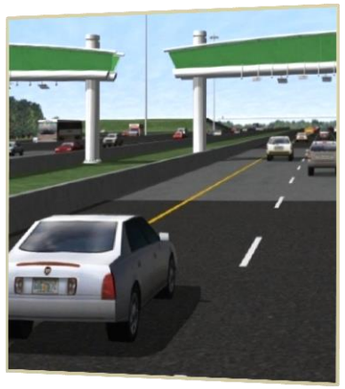
- High Confidence OCR %

- Delivery Lag Time
- Rejected Transactions

82.99%	62.50%	45.10%	19.27%	1.61%	99.80%	98.98%	99.59%	99.39%	1.63
78.89%	57.17%	34.37%	21.43%	2.84%	97.67%	97.09%	94.76%	94.76%	21.55
84.07%	61.95%	39.10%	21.67%	1.70%	98.96%	98.39%	97.00%	96.19%	8.77
83.03%	64.81%	46.77%	21.20%	1.78%	98.07%	93.88%	99.43%	99.09%	2.60
83.82%	63.56%	44.44%	23.01%	2.24%	100.00%	99.02%	100.00%	99.84%	0.16
85.69%	67.80%	47.70%	22.74%	2.49%	100.00%	99.49%	100.00%	100.00%	0.34
86.06%	68.29%	48.50%	22.54%	1.98%	99.60%	95.23%	99.80%	97.08%	0.94
85.14%	65.23%	43.06%	23.38%	1.74%	98.34%	94.50%	99.43%	98.30%	4.03
87.22%	64.69%	40.97%	26.17%	1.81%	99.65%	99.19%	99.08%	98.96%	10.82
82.38%	62.14%	41.14%	29.59%	1.20%	97.91%	93.28%	98.03%	93.81%	68.39
86.42%	68.98%	51.01%	27.43%	1.12%	99.96%	98.32%	99.96%	99.20%	0.04
82.12%	62.94%	40.14%	31.47%	0.94%	100.00%	99.55%	99.70%	99.05%	0.00
85.03%	69.08%	50.49%	44.06%	0.68%	99.71%	98.04%	98.92%	98.33%	0.10
84.82%	64.47%	43.50%	19.97%	1.48%	98.90%	98.00%	98.80%	98.40%	3.30
86.29%	65.55%	46.05%	20.51%	1.30%	99.56%	97.72%	100.00%	99.21%	0.18
87.69%	70.06%	49.62%	19.71%	2.23%	99.09%	98.18%	99.85%	99.09%	0.00
87.12%	69.14%	48.79%	19.97%	2.46%	99.41%	96.00%	99.80%	97.92%	0.40
88.76%	68.11%	47.47%	19.93%	1.58%	99.84%	98.23%	100.00%	98.88%	0.80
87.07%	69.66%	48.62%	18.57%	3.33%	99.83%	98.79%	100.00%	99.66%	0.17
87.37%	70.71%	51.93%	19.06%	1.33%	98.82%	97.48%	99.83%	98.99%	0.00
86.69%	66.35%	44.97%	30.13%	1.68%	99.24%	97.53%	99.81%	98.29%	0.57
84.04%	67.55%	44.30%	21.83%	1.57%	99.47%	98.14%	99.73%	99.73%	0.00
89.94%	72.41%	49.28%	20.33%	2.24%	99.43%	98.57%	99.71%	99.43%	0.00
86.66%	70.40%	48.85%	18.27%	1.36%	99.69%	97.86%	99.85%	99.23%	0.31
89.02%	69.72%	50.92%	18.41%	0.99%	99.50%	98.00%	100.00%	99.17%	0.17
84.70%	66.93%	46.82%	21.61%	1.72%	99.52%	97.30%	99.76%	98.57%	0.16
88.63%	70.16%	46.37%	19.94%	3.01%	99.11%	97.07%	99.82%	98.67%	0.09

SLAM Challenges

- Interoperability
- Four different toll systems – different vendors
- Dedicated, Mixed Mode, AET, ORT and Express Lanes
- Issue Prioritization
- Root cause analysis can be easy, fixing it can be hard



Summary

- With National Interoperability looming, the need for closer look at performance, design and business rules becomes more critical
- SLAM fills this need by bridging the gap between real-time monitoring/repair and business stakeholders
- Not a static situation… must evolve with the technology

Questions?


SLAM
SUPPLEMENTAL LANE ANALYSIS AND MONITORING
RTN/Xerox Lanes