

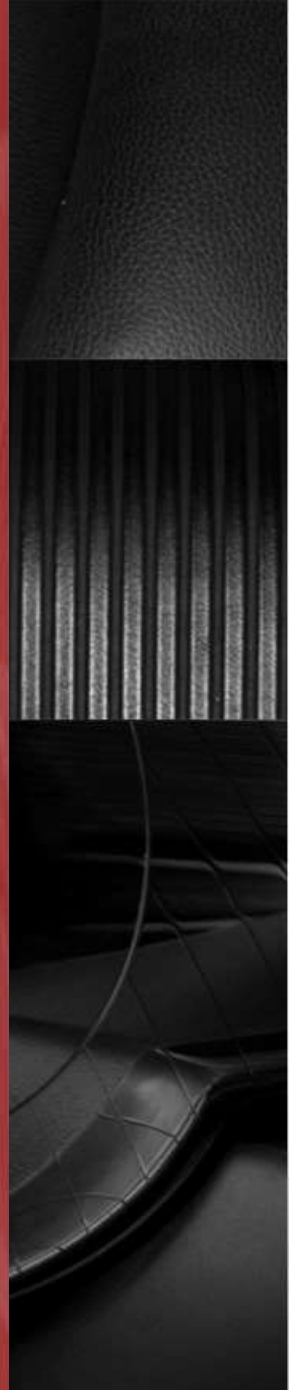
# MONTANA's Experience with Automated Citation and Ramp Screening Systems

2018 Commercial Vehicle Safety and CDL  
Compliance Summit

November 28, 2018

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# Background

- Montana's ITD Program (formerly CVISN)
  - 2008 CVISN team identified 2 ITD projects
    - Automated Citation, including Computer Aided Dispatch
    - AWSSS project, including SIRIS screening project to improve high volume weigh stations operations
  - 2009 thru 2012
    - Develop projects concepts and plans
    - Secure Grants and state match funding
    - Contract Award and deployment



# Why Automated Citations?

- Manual Citation Process (Costly)
  - Quadruplicate citation forms purchased and manually distributed, tracked and retrieved.
  - Hard copies of citations hand delivered to the courts.
  - Posted bond deposited to courts by officers.
  - Storage and indexing of hard copy records consume space.
  - Supervisory citation audits require manual review of hard copy files.
  - Radio dispatch requires two way communications
- Yearly Cost Average = \$173,252



# Benefits SmartCop/SmartCad

- MDT, MHP and FWP share expenses for automated citation and Computer Aided Dispatch systems
- Automated processes
- Ability to locate other law enforcement personnel
- Connection to NLETS, nationwide system
- Saves time by being electronically submitted to courts
- Time savings for officers as it cross references CDL & vehicle queries to citations and incident reports
- Average yearly cost since deployment = \$97,371.00, saving \$75,881 over manual process costs

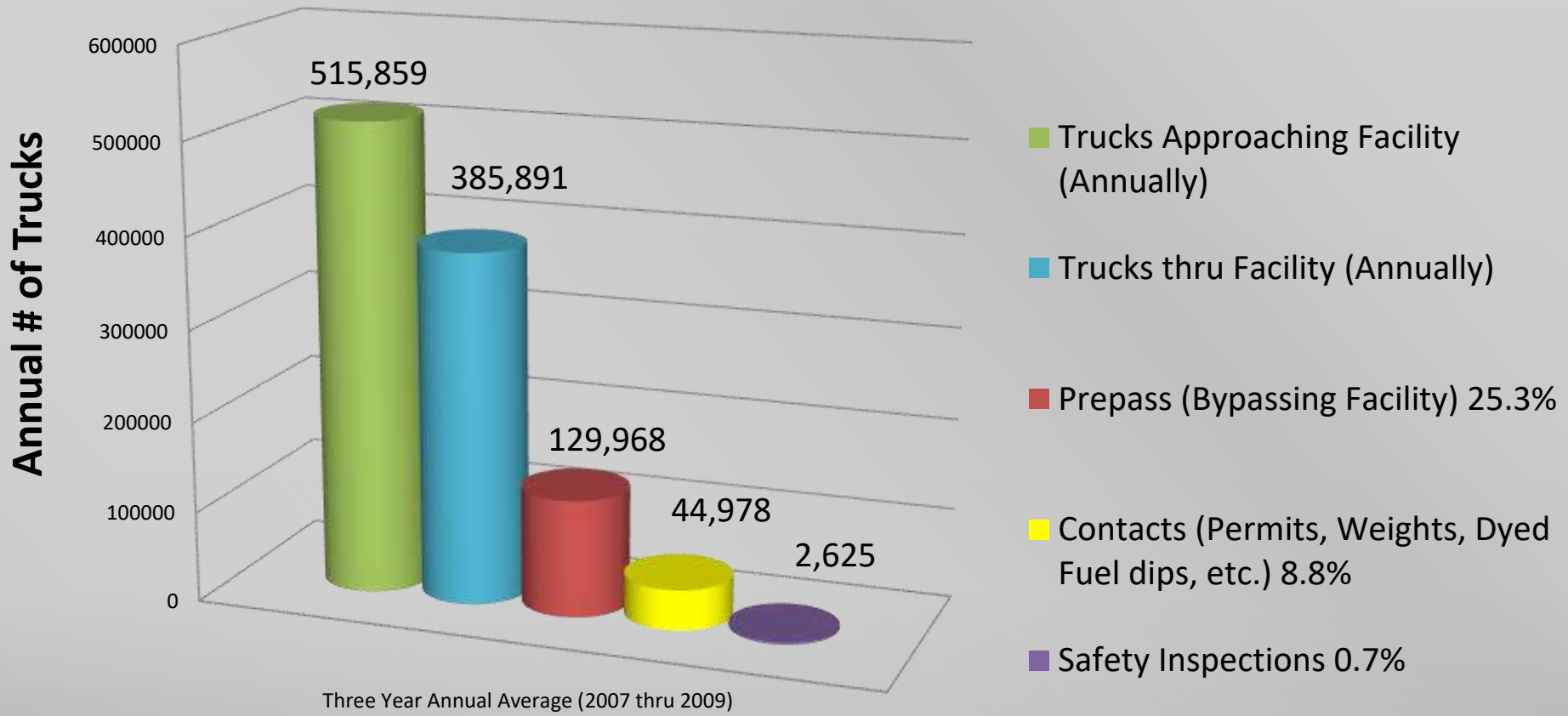


# MDT Smart Cop/Smart CAD Use

- 5 Captains and 2 Lieutenants operating from offices and patrol vehicles
- 53 Officers operating 30 Weigh stations
- 26 Officers operating mobile patrol vehicles statewide

# Why Ramp Screening?

## EB Billings Commercial Enforcement Contacts vs Traffic

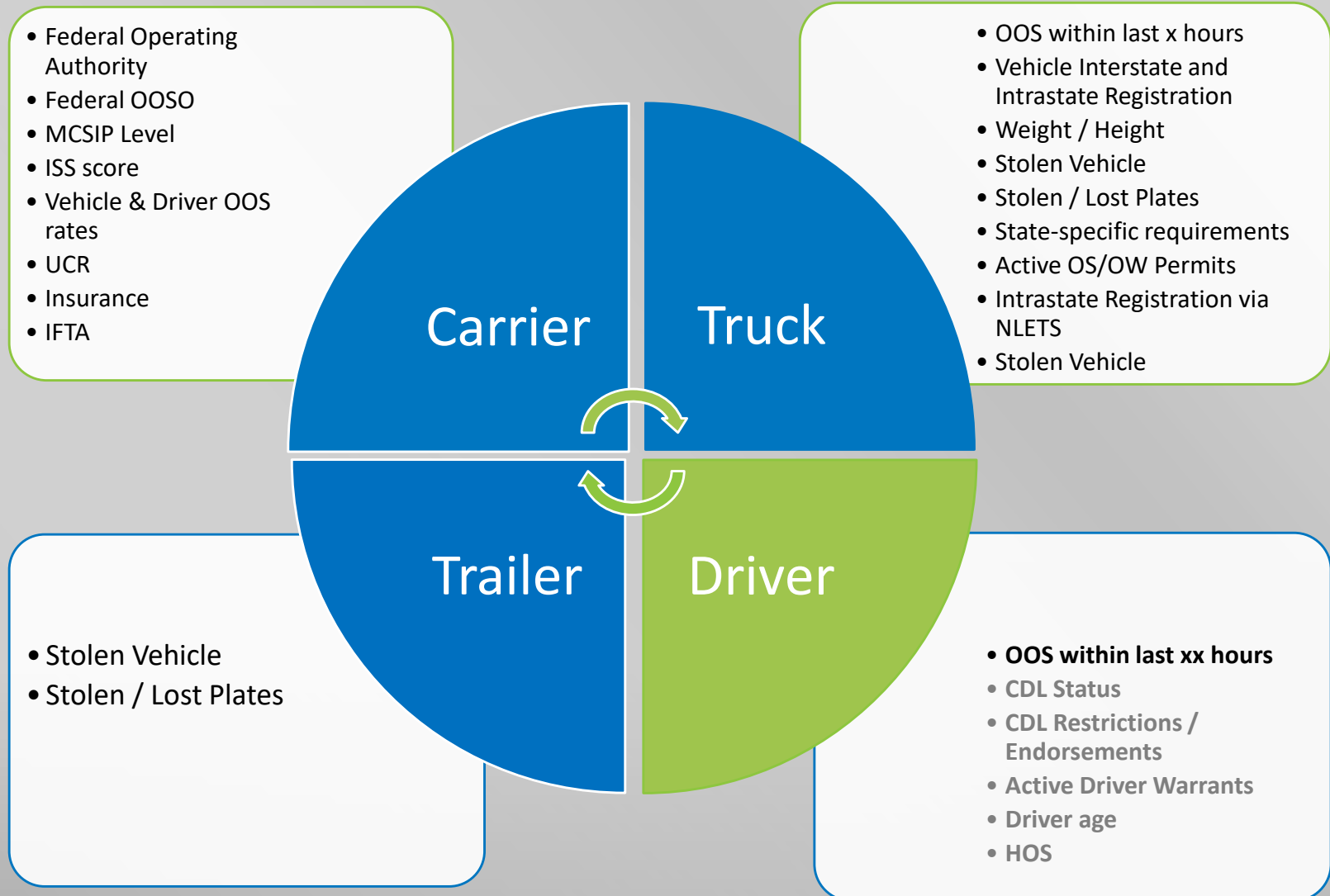




# Mainline and Ramp Screening History

- **1994** - MDT hired MSU/WTI to conduct study to determine cost/benefit of IOU (NORPASS), PREPASS and State owned weigh station bypass systems
- **1995** - Montana joined HELP as an full member
- **1998** - First PrePass site installed with state owned WIM on I 15 at Lima Montana
- **2011 thru 2014** Installed 360 SmartView
- **Current MT Bypass deployments**
  - 7 Interstate weigh stations +1 Joint POE with Wyoming
  - 2 Non Interstate weigh stations
- **Current 360SmartView deployments**
  - 5 weigh station ramps
  - 2 Mobile Enforcement Trailers
  - 360 SmartView MEU (CVIEW) available to all MCS enforcement officers and MCSAP Investigators

# 360 SmartView Screening Factors

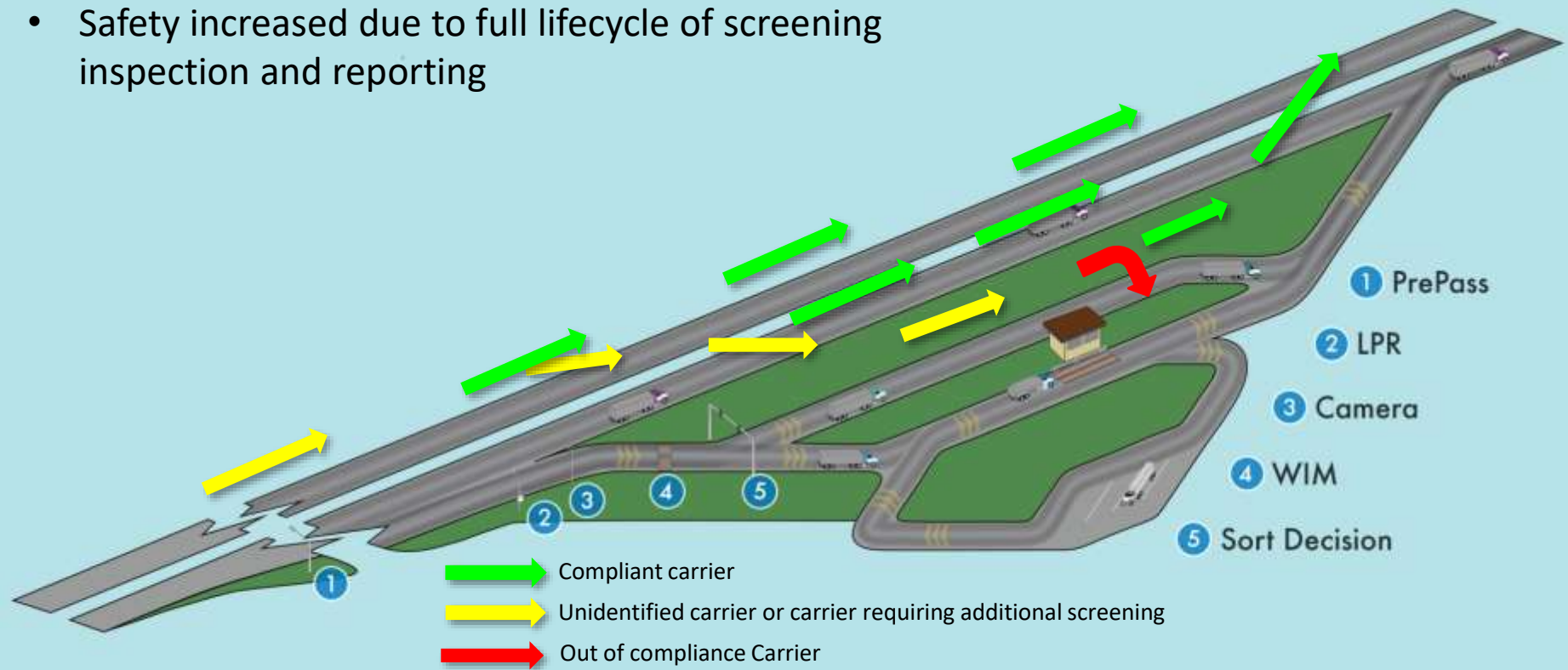




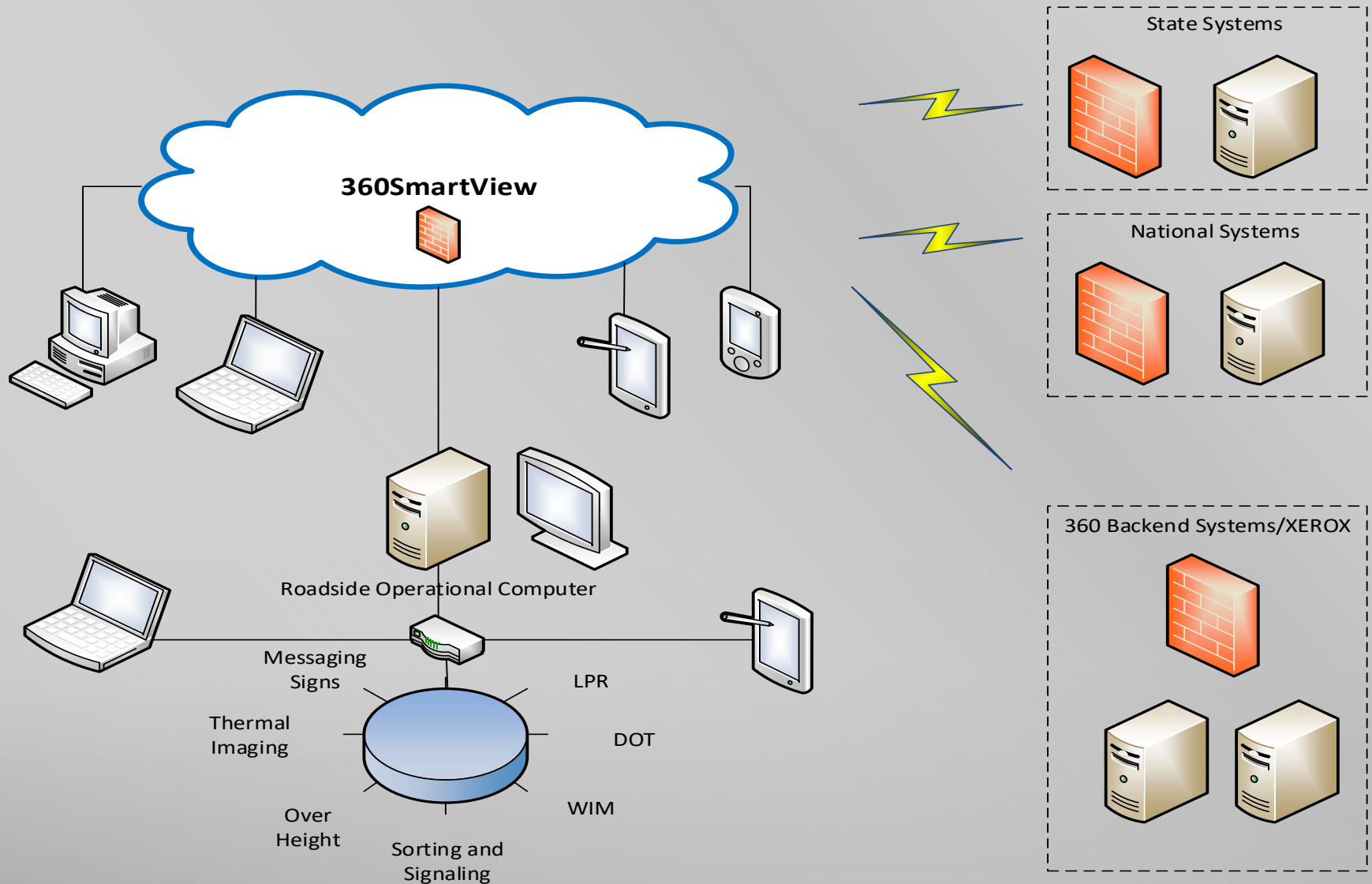
# Mainline and 360 SmartView Screening

## PrePass + 360SmartView = Complete Solution

- Nearly 100% of traffic is screened
- Officers still in control of questionable vehicles or companies and able to manually intervene
- Safety increased due to full lifecycle of screening inspection and reporting



# ITD Architecture





# Funding

- Deployment

- ECVISN Grant

- 50% CVISN Funds (FMCSA ITD Grant funds 85% )
    - 50% UCR Funds (State UCR funds 15%)
    - Legislative Approval

- Maintenance

- E ITD and MCSAP Grant
  - UCR Funds



# **First year 360 Result**

- **Violations per safety inspection – Up 23%**
- **Vehicles with an ISS “Inspect” rating – Up 25%**
- **Temporary Fuel Permit Revenue – Up 55%**
- **Temporary Registration Permit Revenue – Up 88%**



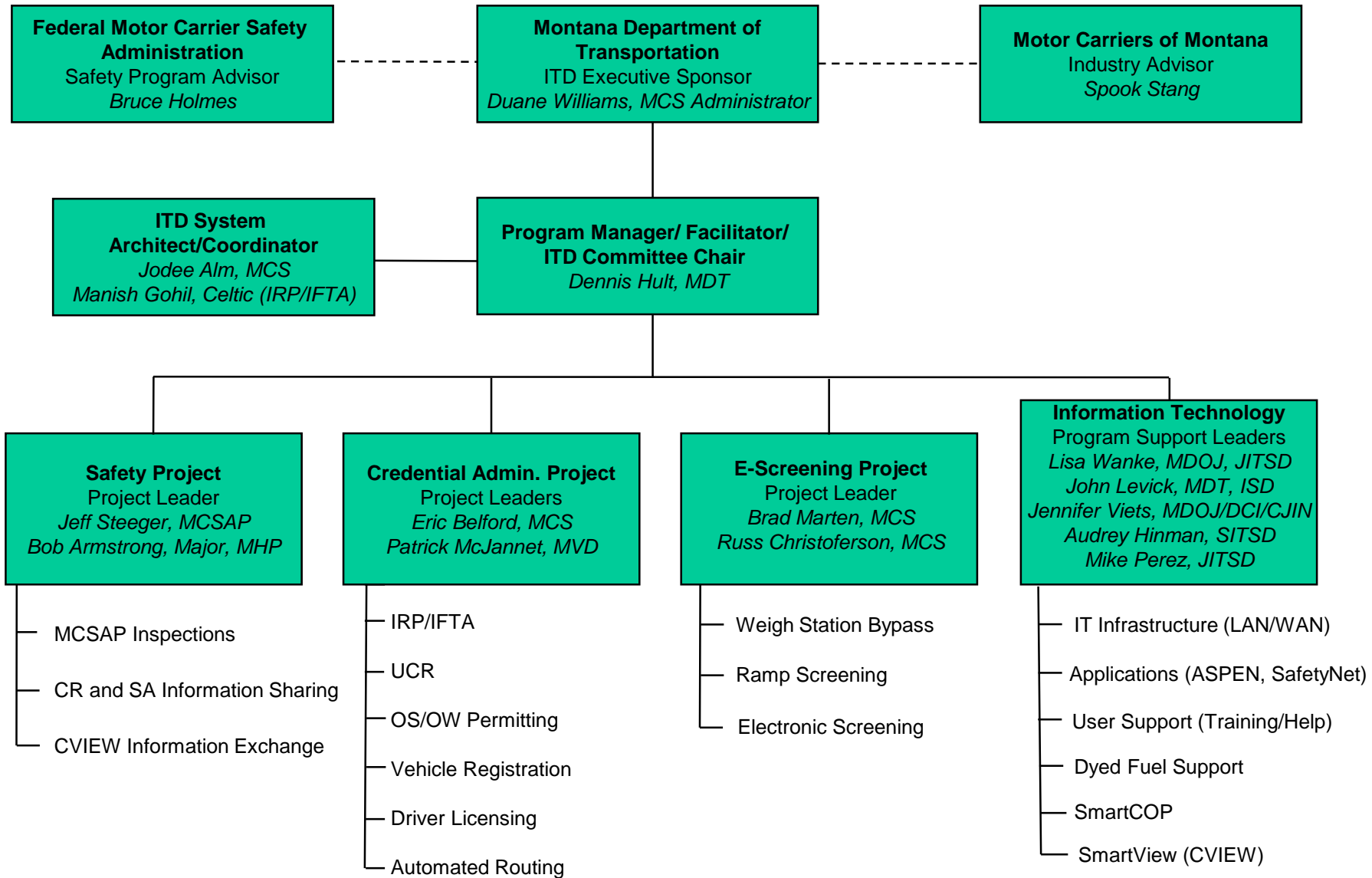
# Montana 360 SmartView Deployments

Ramp Screening currently installed at 5 Interstate locations (6 Ramps)

- Butte Westbound weigh station on I-15 / I-90
- Billings Eastbound and Westbound weigh station's on I-90
- Haugan Eastbound and Westbound weigh station on I-90
- 2 Mobile Trailers

360 SmartView MEU is Montana's ITD CVIEW

# MT ITD (CVISN) Organizational Structure





# Tactical Approach

- Establish Program/Program Plan
  - Identify Executive Champion to shepherd the program
  - Organize program structure, identify leaders and roles across agency and work unit lines
  - Develop and document program plan including a list of projects
  - Develop and document project plans to be used for grant application and legislative funding approval
  - Work together as a team



# **SmartCop and SmartView Operations**





# SmartCAD

- Computer Aided Dispatch (CAD)
- Integrated ESRI mapping allows for real time view of calls and units.
- Tracks assigned and unassigned officers
- CAD info is pushed to officers as soon as it is entered giving officers real time access to information
- Used by multiple jurisdictions



# SmartMCT

- Mobile Computer Terminal (MCT)
- Gives officers immediate, real-time access to SmartCAD, State CIC and NCIC, individual and group chat, and Field-Based Reporting (FBR)
- Easy access to State/NCIC queries

Shows current activities and who is currently on shift.

# SmartMCT

Access to the CAD

CTS America - SmartMCT (9.3.9.113)

HOME CAD PERSON VEHICLE VESSEL ARTICLE GUN BUSINESS USERS

BUSY AVAILABLE ENROUTE ONSCENE RELEASE ACTIVITY TRANSPORTATION CREATE QUICK STOP VESSEL STOP VIEW PRIOR STOPS BOLO LOOKUP TIME LOOKUP

UNIT STATUS INCIDENT

Messages Chat CAD MAP

Pri	B1	B2	Comp	P	Additional Info	Locat	District	Det	Timer	Incident No	COMM
			COMP	4		I90W	D7	BOZ	01:37:0	MHP14CAD077354	J2508 D5
			COMP	4		I90E	D1	SUP	00:34:0	MHP14CAD077409	J2572 D6
			COMP	4		E LIN	D3	HEL	00:05:1	MHP14CAD077436	J3853 D1
			RELAY	5	TO MCCONE CO	W 3RI	D4	BLN	**29:35	MHP14CAD074032	J5707 D3/D7
			RELAY	5		E 2ND	D5	WLF	05:43:3	MHP14CAD077245	J7276 D2/D8
			BOLO	5	WHITE EXPLORER	US2 W	D5	WLF	01:41:2	MHP14CAD077353	J7832 D4
			INSP	6		42 SC	D2	GTF	54:01:1	MHP14CAD076180	
			INSP	6	286 ADVISED	2504	D2	GTF	48:19:0	MHP14CAD076385	
			INSP	6	SIDNEY TROOPER	MT-1E	D5	SID	03:20:5	MHP14CAD077291	
			ATL	6		I90W	D3	HEL	00:29:4	MHP14CAD077413	
			INSP	6		4143	D1	HAM	00:21:3	MHP14CAD077420	
			INSP	6		43 PR	D6		00:18:3	MHP14CAD077424	
309			TRAFI	2		N RES	D1	MSS	01:01:0	MHP14CAD077384	
314	341		TRAFI	2		I90E	D7	BOZ	00:59:4	MHP14CAD077386	
252	130		TRAFI	2		E CUS	D3	HEL	00:10:2	MHP14CAD077430	
152			TRAFI	2		US93	D6	KLS	00:06:4	MHP14CAD077432	
291			TRAFI	2		I94E	D5	MLC	00:06:2	MHP14CAD077433	
271			TRAFI	2		MT16	D5	GLE	00:05:4	MHP14CAD077434	
310			TRAFI	2		US12	D3	HEL	00:05:3	MHP14CAD077435	
313			CRASH	3	BLOCKAGE	WHIT	D6	KLS	00:37:0	MHP14CAD077396	
223			COMP	4		I90E	D4	BLN	01:32:4	MHP14CAD077314	
228			COMP	4		US32	D5	MLC	00:27:1	MHP14CAD077390	

101 123 125 147 150 210 231 253 273 274 279 284

D1

LOGOUT Choose GPS Direction Speed Latitude: Longitude: Altitude: GPS Disconnected MCS1 U6122 MCS AGENCY OFFDUTY CAD STATUS

# SmartMCT

Maps out  
units &  
incidents  
that are in  
the  
officers  
immediate  
area

CTS America - SmartMCT (9.4.2.76)

HOME CAD PERSON VEHICLE VESSEL ARTICLE GUN BUSINESS USERS

DL NAME DL REG TAG MPE NAME MPE MPE OFF MBI NAME MBI MBI DECAL BY NAME BY PER NO USER NAME USER RADIO NO MOBILE FORMG

SEARCH CUC SEARCH MASTER NAME INDEX SEARCH MASTER BUSINESS INDEX USERS REPORTING

Messages Chat CAD MAP

Route My Call Route Selected Call Show Selected Call Drop Marker Map Tools Saved Locations N 46.29211589 W 112.15171298

GPS Disconnected

Click & Drag Track My Unit Find Location Unit No. Find

GRANITE POWELL DEER LODGE MONTANA JEFFERSON BEAVERHEAD SILVER BOW MADISON

MapPoint

LOGOUT Choose GPS Direction Speed Latitude: Longitude: Altitude: PANIC U2481 MCS18 AVAILABLE CAD STATUS

GPS No Fix



# SmartMCT

## CDL Verification Checks

CTS America - SmartMCT (9.1.6.135)

HOME CAD PERSON VEHICLE VESSEL ARTICLE GUN BUSINESS USERS

DL NAME DL # REG TAG MND NAME MND # MND CH # MBI NAME MBI # MBI DECAL UCC BY NAME BY PER NO USER NAME USER RADIO NO MOBILE FORMS

SEARCH QIC SEARCH MASTER NAME INDEX SEARCH MASTER BUSINESS INDEX UCC USERS REPORTING

Messages Chat CAD MAP

Read Protected Subject / Type Received On

Read Read All Protect Delete

**Query Driver License By Name**

Florida [FL]

Last Name First Name Middle Name

Male [M]

DOB

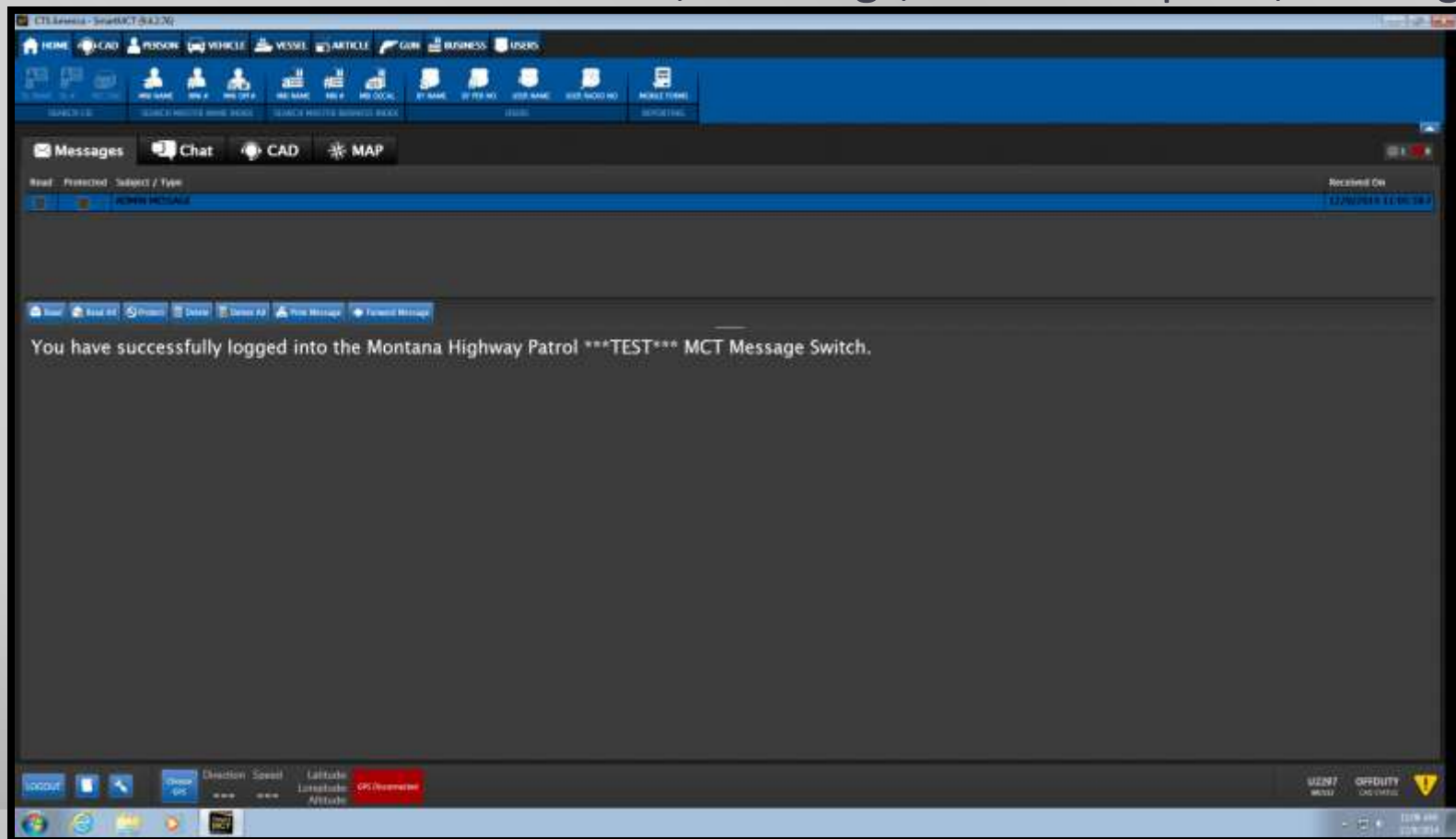
(0)

Submit Paste Cancel Scan

LOGOUT Choose GPS Direction Speed Latitude: Longitude: Altitude: GPS Disconnected MCS18 MCS OFFDUTY U2481 AGENCY CAD STATUS

# SmartMobile

- Officers can access Mobile Forms from their MCT
- Can be used in an on-line status or off-line status
- Electronic forms for citations, warnings, incident reports, and logs



# Mobile Forms

MobileFORMS: Montana Highway Patrol Mobile Forms

File View Configuration Options Help

Notice To Appear And Complaint

Traffic Warning / Faulty Equipment

Speed Device Log

Citizen Contact Log

Incident Report

Citizen Assist

Report Status	Date/Time ▼	Citation No	County	Name		Vehicle		
				Last	First	Tag No	State	Year
▶ Checked In File	10/18/2018 08:40	530 A149305 M	SILVER BOW	FARROW	RODD	132566A	MT	2007 39

Add New

Add Companion

View Record

Find Record

Request Report(s)

Delete Record

Save GPS Location

Officer Profile

Issued Numbers

Plot On Map

Reports Summary

Bulk Delete Mode

Switch Users

Logout

Close

11/16/2018 15:01 Insert Mapping Initialized [ ESRI ] GPS Share Enabled U0027 9.11.2.269 MobileForms Client



# 360 SmartView Screening

- SIRIS used as a screening tool for:
  - Brakes
  - Hubs
  - Tires
- System also checks for :
  - Active O/S & O/W Permits for MT
  - Stolen Vehicles – NCIC hot list
  - Current UCR
  - Valid Operating Authority
  - Valid IFTA
  - Valid IRP
  - High Safety Ratings
  - Vehicle or Drivers placed OOS recently
  - Current and Past Inspections



# Hardware Installation



# Computer Screen Display Inside Weigh Station

**e360SmartView** | Mossmain WB July 28, 2015 | 1:55 PM | Welcome mtuser | Log Off | Count: 2676  
Home Search Reports

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Plate :  State :  DOT :  Submit Lanes viewed

	 <b>P47808 - MT</b>	 <b>320009</b>
<b>STEVE NELSON TRUCKING INC.</b>		

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	 <b>LAK7933 - NY</b>	 <b>000934</b>
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	 <b>P47747 - MT</b>	 <b>596934</b>	Tire Pressure Alert ISS = 93 S
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	 <b>150089 - IN</b>	 <b>854215</b>	ISS = 87 S
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	 <b>1021 -</b>	 <b>569093</b>	No UCR MCSIP-0050
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### Vehicle Identification

### System Information

Sessi	7/28/201	Modu	Connecte		
Vehic	Vehicle in	Ambi	71.06 °F		
Vehic	2015072	%	27.60%		
Axes	7	Dew	45.00 °F		
Appr	-	Free	274.31		
L7	L6	L5	L4	L3	L2
88	90	82	98	99	91
R7	R6	R5	R4	R3	R2
Temp	Tire	Realti	On		

### Collected Data

- Vehicle #20150728135116  
5 Axes  
Complete
- 07/28/2015 13:51:28  
Inspection #57  
Vehicle #20150728135128  
7 Axes  
Not
- 07/28/2015 13:51:44  
Inspection #57  
Vehicle #20150728135144  
7 Axes  
In Progress - Collecting



# Obstacles

- Interpretation of information returned
  - Brake, tire and hub alerts are showing because one or more of the brakes, tires or hubs have temperatures outside the average
  - Does not necessarily mean that there is a problem
  - Does not always show when there are problems
- Misreading of information
  - System will return incorrect information or will not return any information at all



# Successes

- To be used as a Screening Tool to help select which vehicles to conduct further investigation or inspections
  - Inspectors must have the right mindset that it is a tool to use and is prone to mistakes but that ultimately it will help them decide what trucks to inspect
- Officers who utilize the system more frequently are finding more violations during Level 1 or 2 inspections and have higher quality inspections