Presenter:

Tom Manzagol

Centralized Fleet Automated Management System (CFAMS)

Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

CFAMS - CTMA

- **Selected as CTMA Program funded by NCMS in 2006**
- **Industry Participants:**
  - **I.D. Systems**
  - **Ford Motor Company**
- **Government Partners:**
  - **Sierra Army Depot – participating as an implementation site**
  - **Anniston Army Depot – participating as an observer**
  - **Red River Army Depot – participating as an observer**
  - **DLA DRMO and DDSJ**

“We feel this system (CFAMS) has the potential to save DOD up to $100,000,000 in maintenance costs”

- Greg Kilchenstein, OSD

I.D. Systems

Why *CFAMS*?

- **Paper-based management:** labor-intensive; no access control; no real-time visibility; human error
- **Wireless systems**: proven effective/reliable for access control, real-time data & asset visibility, data accuracy, safety/maintenance/productivity improvements, and rapid return on investment

Primary Benefits of CFAMS

- **Reduction of lost work-time accidents and asset damage**
- **Increase operational readiness of industrial vehicle fleet**
  - **Drives expanded productivity at the depot**
  - **Reduces maintenance expenditure**
  - **Reduces capital expenditure on equipment procurement**
  - **Reduces fuel cost and carbon emissions**
- **Enables Lean/Six Sigma programs for process improvement**
  - **Real-time access to detailed operational productivity data**
  - **Facilitates “doing more with less”**

Expanding the Range
of Wireless Solutions
for Mobile Equipment
Management

I.D. Systems

Equipment Management Issue #1

- **SAFETY & SECURITY**

  (negative consequences when untrained and/or unauthorized personnel use equipment)

Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

Equipment Management Issue #2

- **CBM** (lack of timely data, inefficient planning, and poor control of equipment lead to high maintenance costs & down time)

Equipment Management Issue #3

- **LEAN LOGISTICS**

  (excess equipment & underutilized people add up to major capital and operating costs that can be reduced significantly)

Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

Equipment ManagementIssue #4

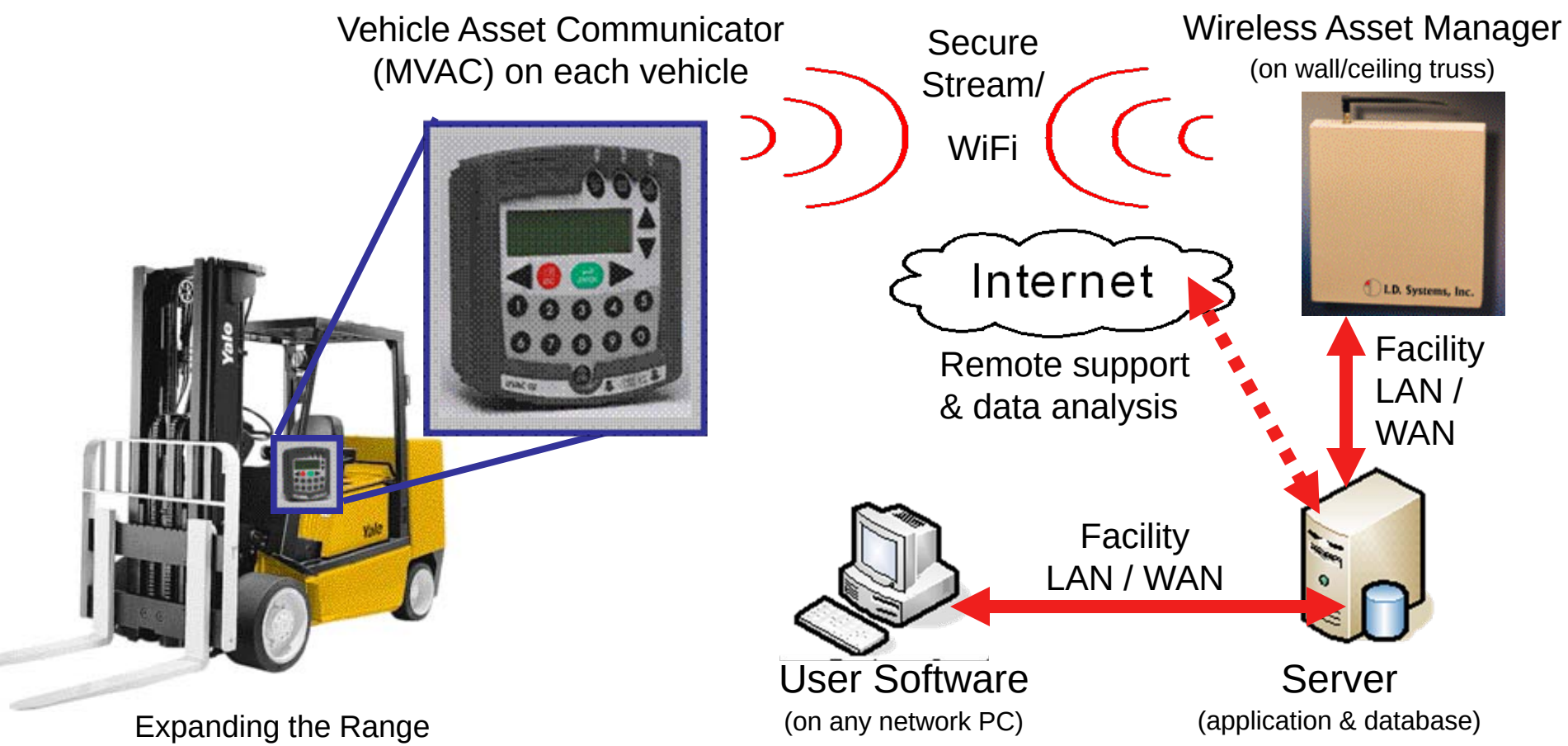
- **<u>VISIBILITY/LOCATING</u>**

  (Access to timely location data avoids wasted time locating mission-critical equipment)

Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

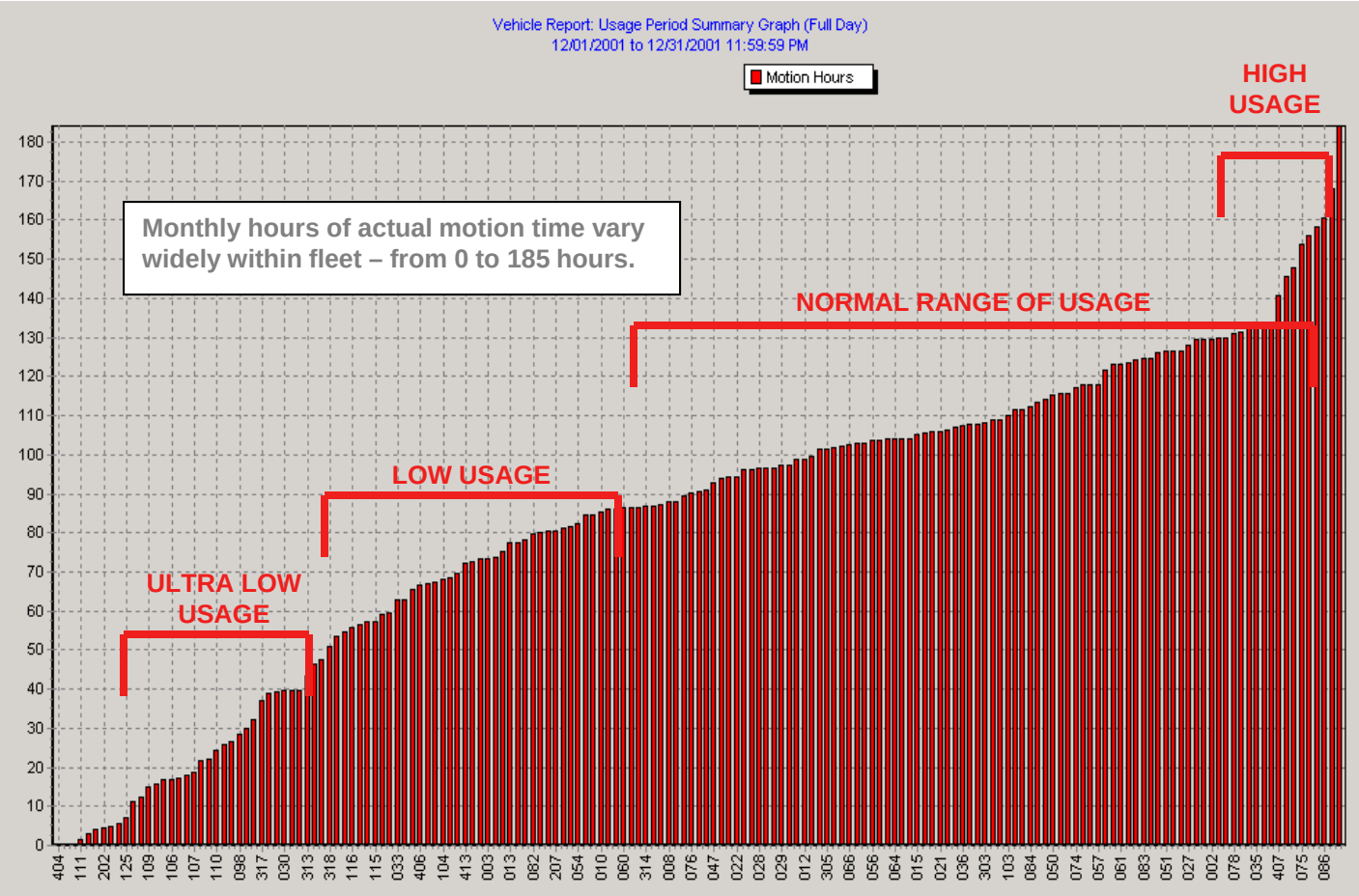
CFAMS System Architecture



Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

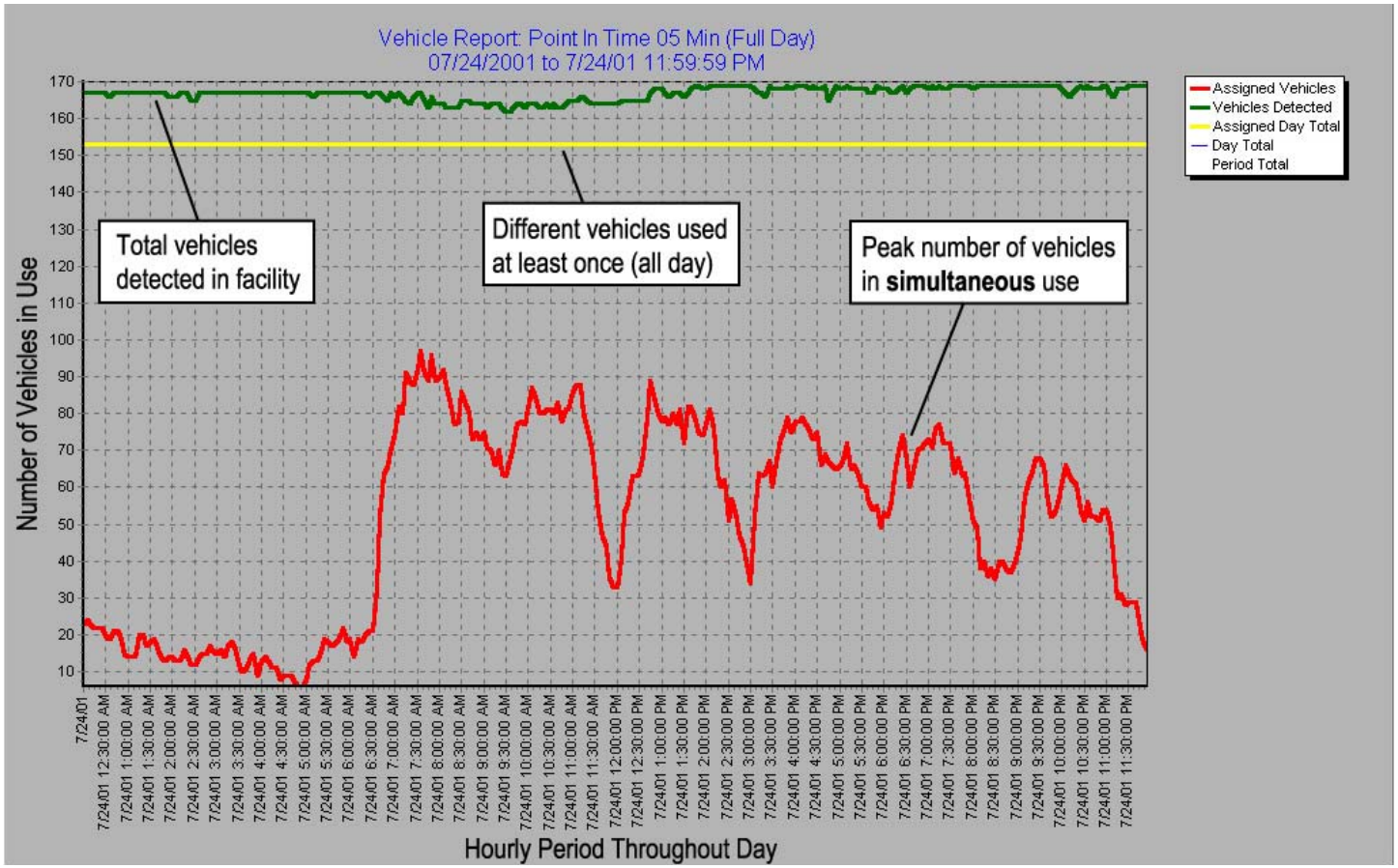
CFAMS Run Time Analysis



Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

CFAMS Fleet Utilization Analysis

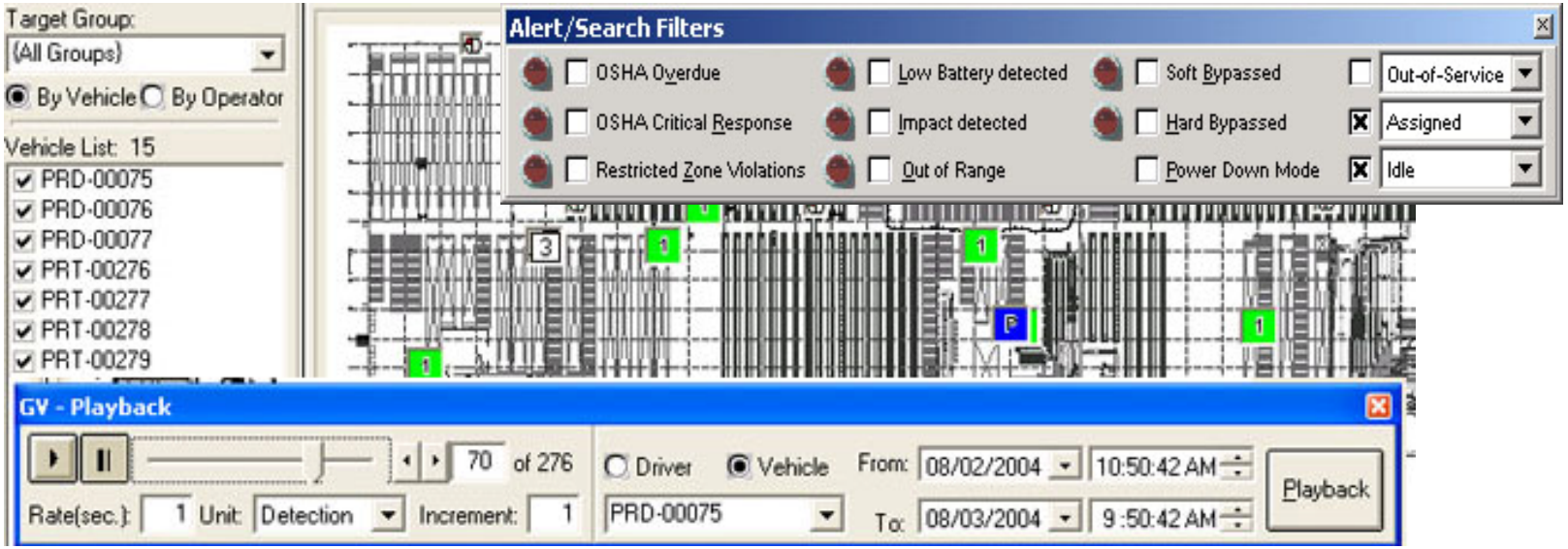


Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

CFAMS Real-time Analysis Tools

- Real-time viewer locates idle/abandoned vehicles
- Filtered views by vehicle, operator, workgroup, safety condition, operational status, other factors
- Historical movement replay for workflow analysis



Return on Investment Case Study

SIAD
CFAMS
Pilot Test

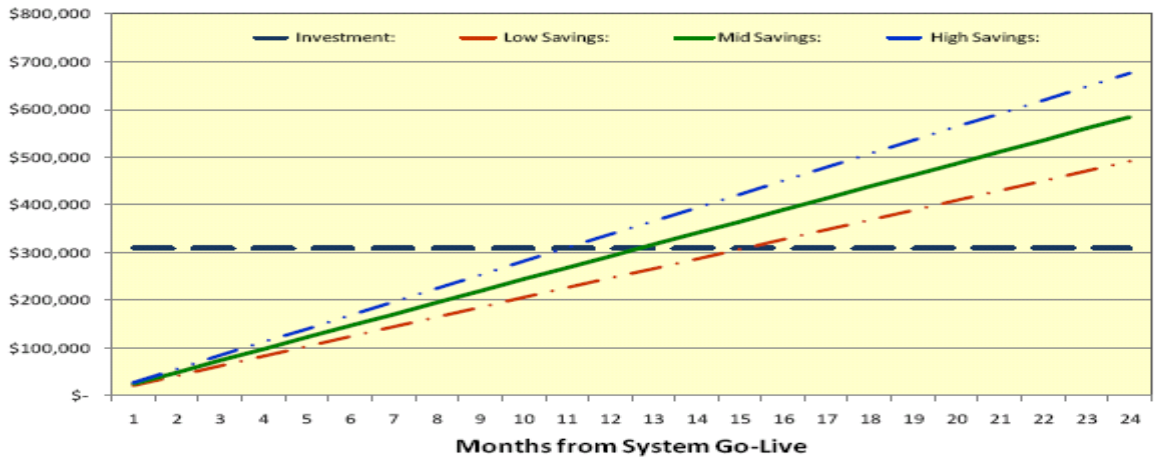
Savings Opportunity Summary for Pilot (50 Vehicles)

Preventative Maintenance/Repair:	$17,700 / Year		
Fleet Reduction Opportunities:			
Vehicle Leases:	$63,000	to	$90,000 / Year
Additional Maintenance/Repair:	7,350	to	10,500 / Year
Fuel/Energy Savings:	14,350	to	20,500 / Year
Labor Cost Reduction:	131,040	to	187,200 / Year
Damage Reduction:	$12,500 / Year		
Total Savings Opportunities Identified:	**$245,940**	**to**	**$338,400 / Year**

Based on the $309,545 cost of the program, and a rate of inflation of 3% annually, the financial benefits of this project are:

IRR:	112% to 183%
5-Year NPV:	$812,510 to $1,234,054
Cash Flow Positive:	11 to 16 months

Project Cash Flow for 50 Vehicle Pilot



Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems

Summary

- State-of-the-art wireless technology
- Comprehensive package of hardware & software
- Enables maximum efficiency (more throughput with less)
- Proven ROI with world-class gov't. and commercial customers

Expanding the Range of Wireless Solutions for Mobile Equipment Management

I.D. Systems