

## Questions / Answers According to Jack

### 1) Frequency of Moving Data between Operations Systems

- Need to evaluate the process..... One size may not fit all
- Provide the necessary / timely information for decision making
- Build the process to work with and without optimization
- As Noted, must balance consistency with optimality

### 2) Multiple assignments of workload

- See answer 1..... One size may not fit all

### 3) Value of Traffic information and real time updates

- Not sure why Traffic data is critical path?
  - Nice to have descriptive tool
  - Large gains can be made without traffic data
- There is more to gain than you think
- Change Management is more important than you think





November 13, 2014

## Operations Innovation

Jack Levis – Senior Director of Process Management



WE ♥ LOGISTICS®

## Basic Facts

- Big savings come from attention to detail
  - 1 mile is worth \$50M\*
  - 1 minute is worth \$14.6M\*
  - 1 minute of idle time is worth \$515K\*\*

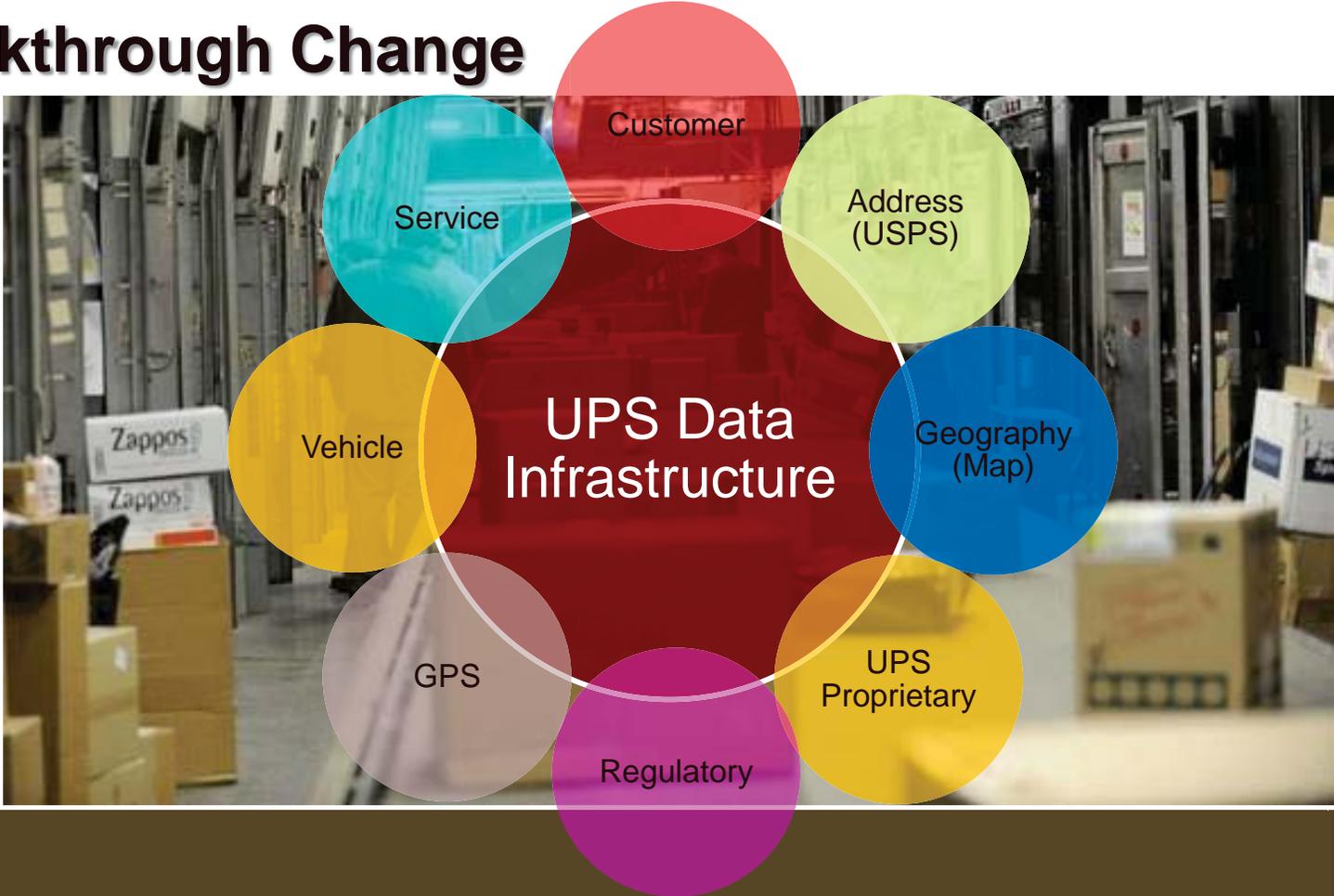
Note: Figures are per driver per day across the US for a year

\* Small Package P/U and Delivery drivers

\*\* Small Package P/U and Delivery, Freight and Tractor / Trailer drivers



# Breakthrough Change



Dispatch Planning System - Plan: 060413\_22\_2605

File View Map Territory DIAD Plans Windows Help

Dispatch Territory List

Loops: [Select...] Filter: [All Seqs] Select Sequences: Loop: [13] Sequence: [Low] High: [High] [Select] [Add To Selection]

Unit	Seq	Street / Consignee	Address Range	Floors	Delivery Stops	Pickup Stops	EAM	PRM	SAV	STD
1311	5313	NORTHVIEW DR	1 99	●	0	0	E A1	13A	13A	13A
1311	5314	ALBRIGHT DR	1 199	●	0	0	E A1	13A	13A	13A
1310	5316	ASHLY CT	1 99	●	1	1	0	0	E A1	13A
1310	5318	AMANDA AVE	1 199	●	2	2	0	0	E A1	13A
1310	5320	ARWCO DR	100 199	●	2	2	0	0	E A1	13A
1310	5322	NORTHVIEW DR	100 199	●	3	6	0	0	E A1	13A
1311	5324	GRANDVIEW RD	1000 1498	●	1	1	0	0	E A1	13A
1311	5330	GRANDVIEW RD	1001 1499	●	0	0	0	0	E A1	13A
1311	5332	GRANDVIEW RD	1500 1999	●	0	0	0	0	E A1	13A
1311	5334	BLOOMING GROVE RD	400 618	●	0	0	0	0	E A1	13B
1311	5336	HOFF RD	1000 650	●	0	0	0	0	E A1	13B
1311	5338	DEAGEN RD	1000 699	●	0	0	0	0	E A1	13B
1311	5340	CANNERY RD	69 199	●	1	1	0	0	E A1	13B
1311	5342	SMITH STATION RD	19 199	●	0	0	0	0	E A1	13B
1311	5344	PAMADEVA RD	6000 6998	●	0	0	0	0	E A1	13B
1311	5346	PAMADEVA RD	6001 6999	●	1	1	0	0	E A1	13B
1311	5348	HOPE WAY	6000 6999	●	0	0	0	0	E A1	13B
1311	5350	CHARITY WAY	6000 6999	●	1	1	0	0	E A1	13B
1311	5352	FAITH WAY	6452 6452	●	0	0	0	0	E A1	13B
1311	5354	SMITH STATION RD	2000 2099	●	0	0	0	0	E A1	13B
1311	5355	SMITH STATION RD	2100 2598	●	1	1	0	0	E A1	13B
1311	5356	SMITH STATION RD	2600 2600	●	0	0	0	0	E A1	13B
1311	5357	SMITH STATION RD	2602 2698	●	0	0	0	0	E A1	13B
1311	5358	SMITH STATION RD	2701 2698	●	0	0	0	0	E A1	13B

Selected Stops/Pkgs: Stops: 9 Pkgs: 12

Rte	Delivery Stop	Pkg	Pln Hrs	Trgt Pln
10A	2	598	8.30	8.30
12A	137	200	8.74	8.65
12B	101	148	8.75	8.75
12C	162	255	9.84	10.0
13A	114	252	8.90	8.98
13C	136	286	8.90	8.90
13D	124	262	8.90	9.00
13E	134	258	9.05	9.15
14A	124	449	9.11	9.15
14B	89	212	9.10	10.00
14C	133	278	8.90	8.90
14D	107	240	8.90	8.90
15A	121	164	9.24	9.20
15B	141	284	9.06	9.05
16A	107	234	9.02	9.00
17A	125	165	9.50	9.50
18A	107	234	9.10	9.10
18B	27	32	4.1	9.50
19A	107	234	9.10	9.10
19B	134	243	9.10	9.10
FA1	1	1	0.33	0.0

ABC Company  
2775 Chestnut Run Road  
Suite 242  
York Pa 17402 - 2558

P:RED S:BROWN I:A14

R120-1118 X

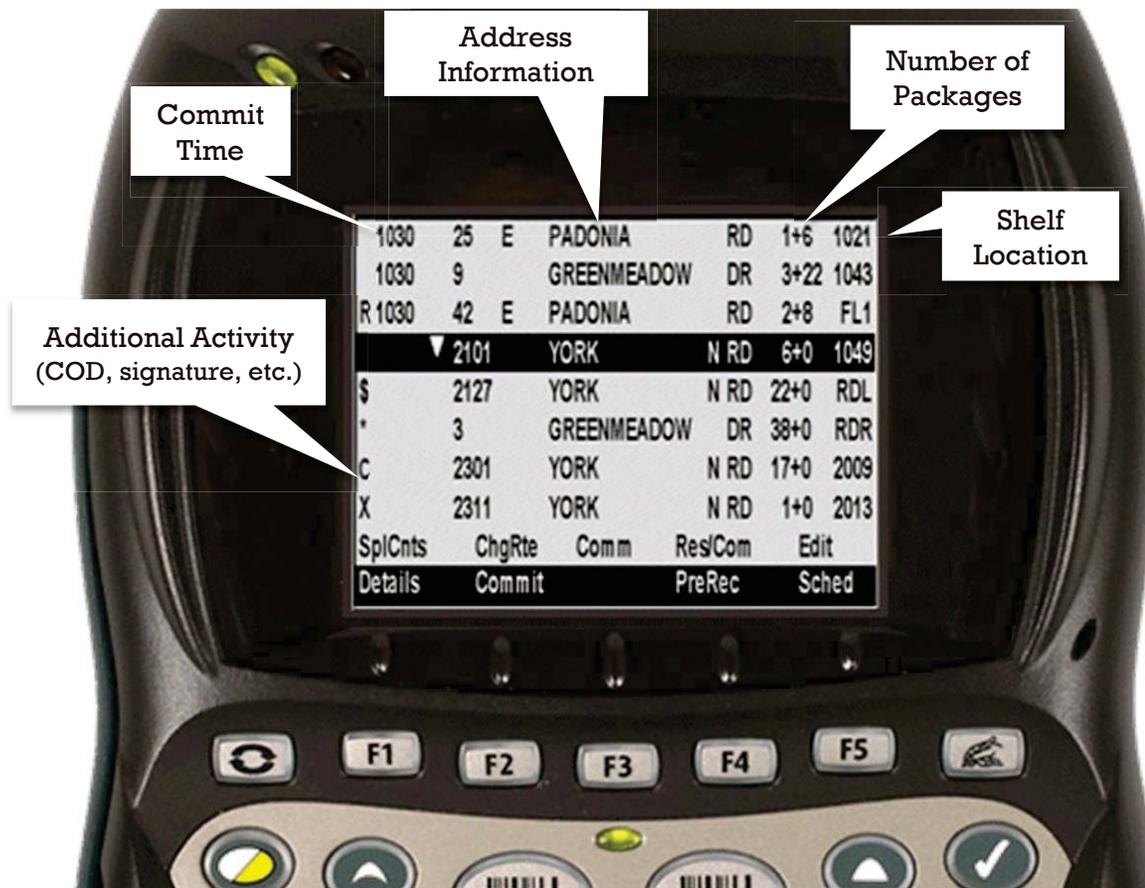
12123X560312345679 1030

DEVICE# 123 STATION# 33 Nov 08 10:38:14 2000  
US 00001 HIP 1.14a INT4420

# Delivery Forecasting and Planning

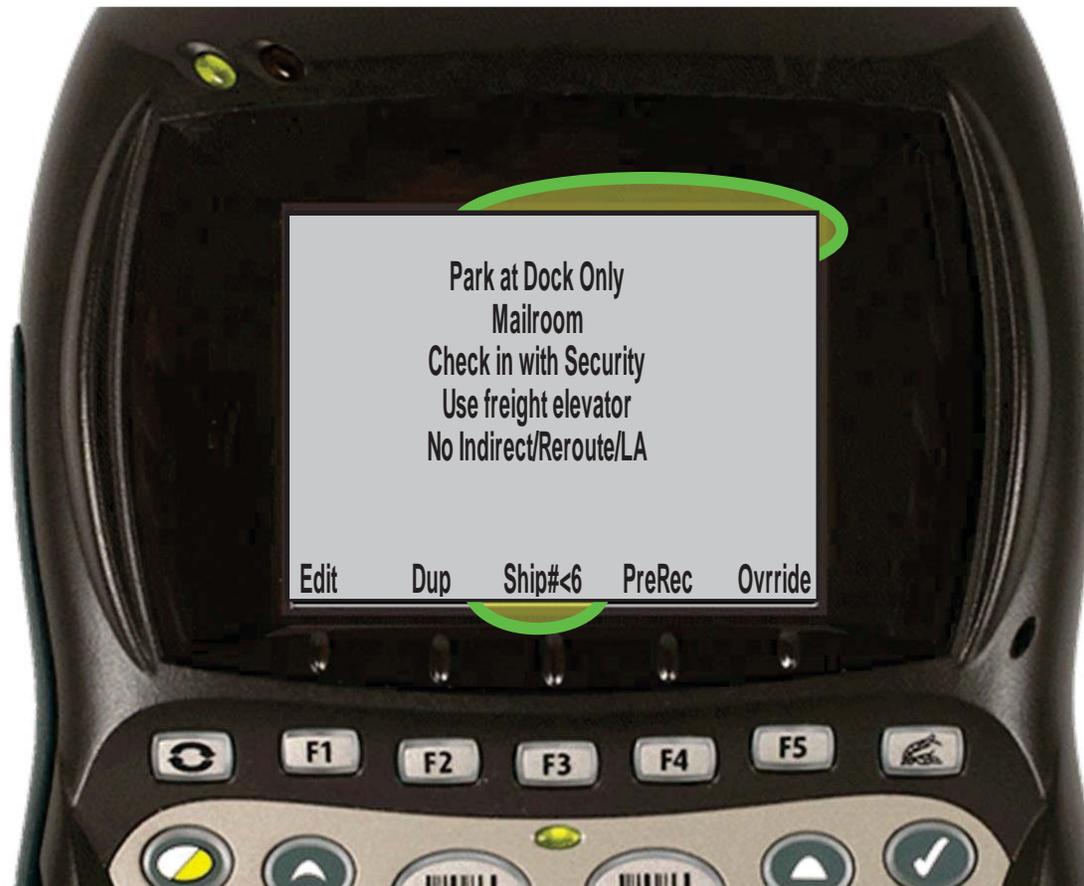
Connecting the Virtual and Physical Network





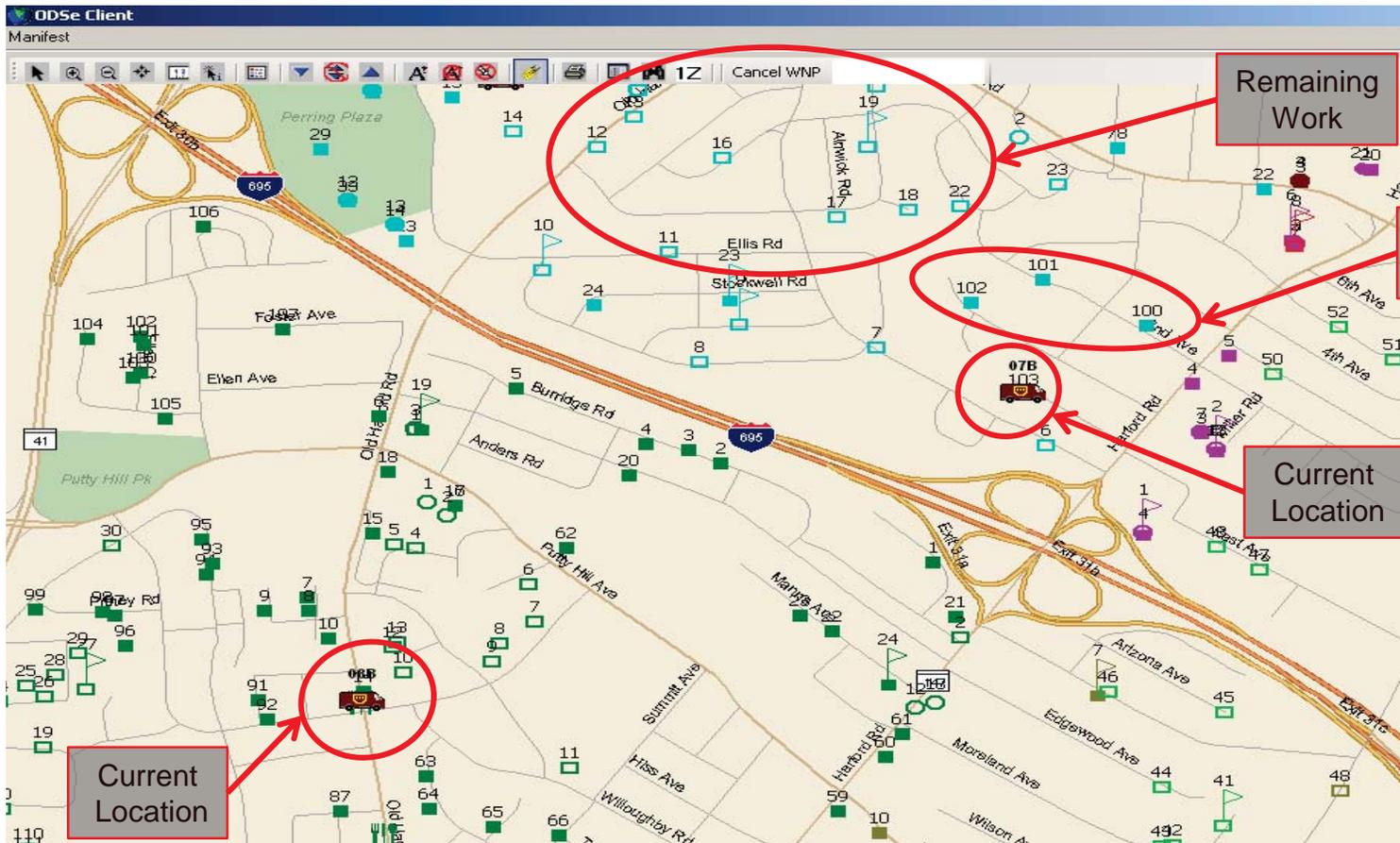
Changing the DIAD from an **Acquisition** device to a driver **Assistant** for making better decisions





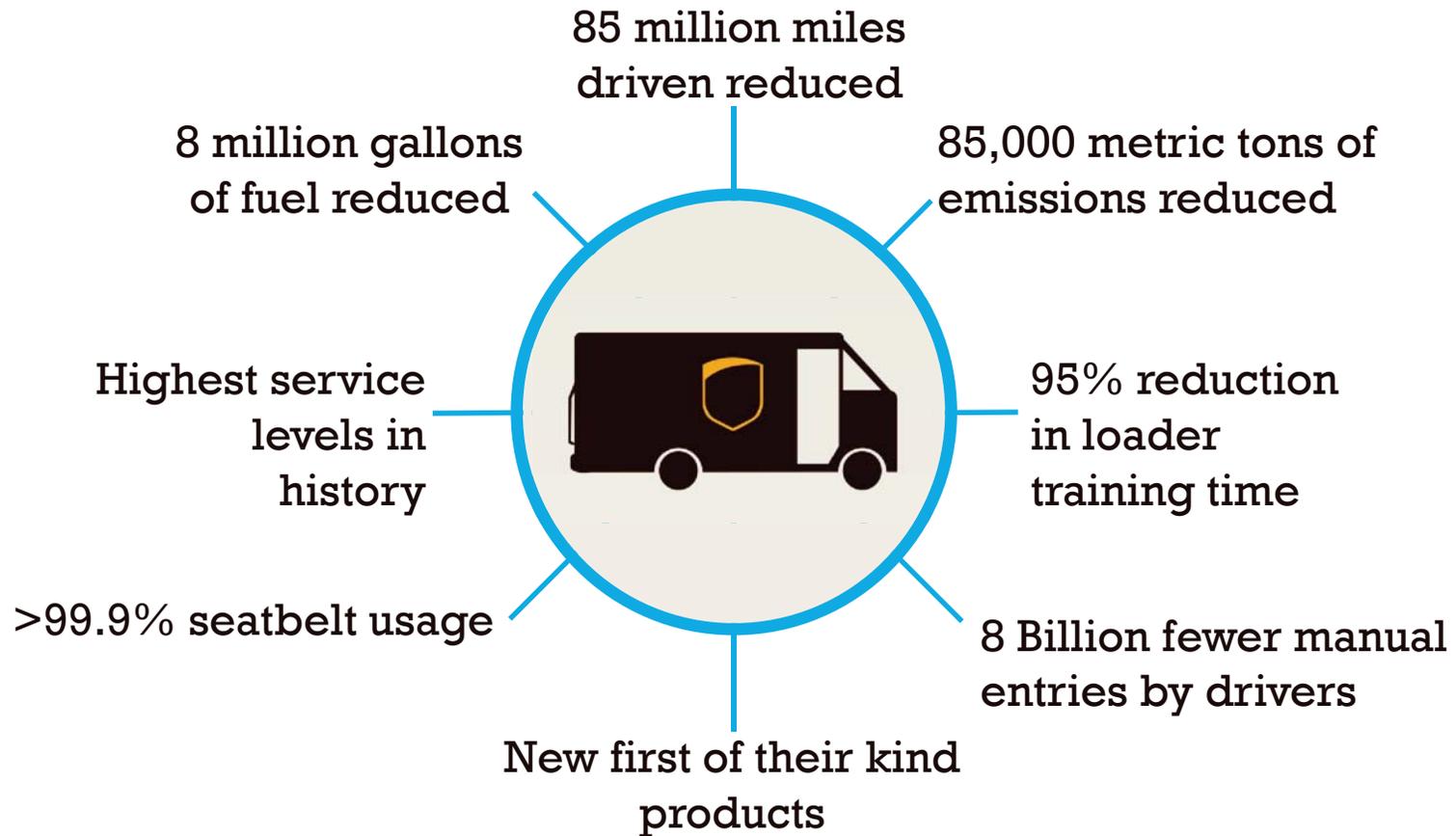
**Keeping our promise to the customer  
Enabling more services**





Efficiently serve the customer by making decisions based on where resources **will be**





## Real world results

**E + I < E**

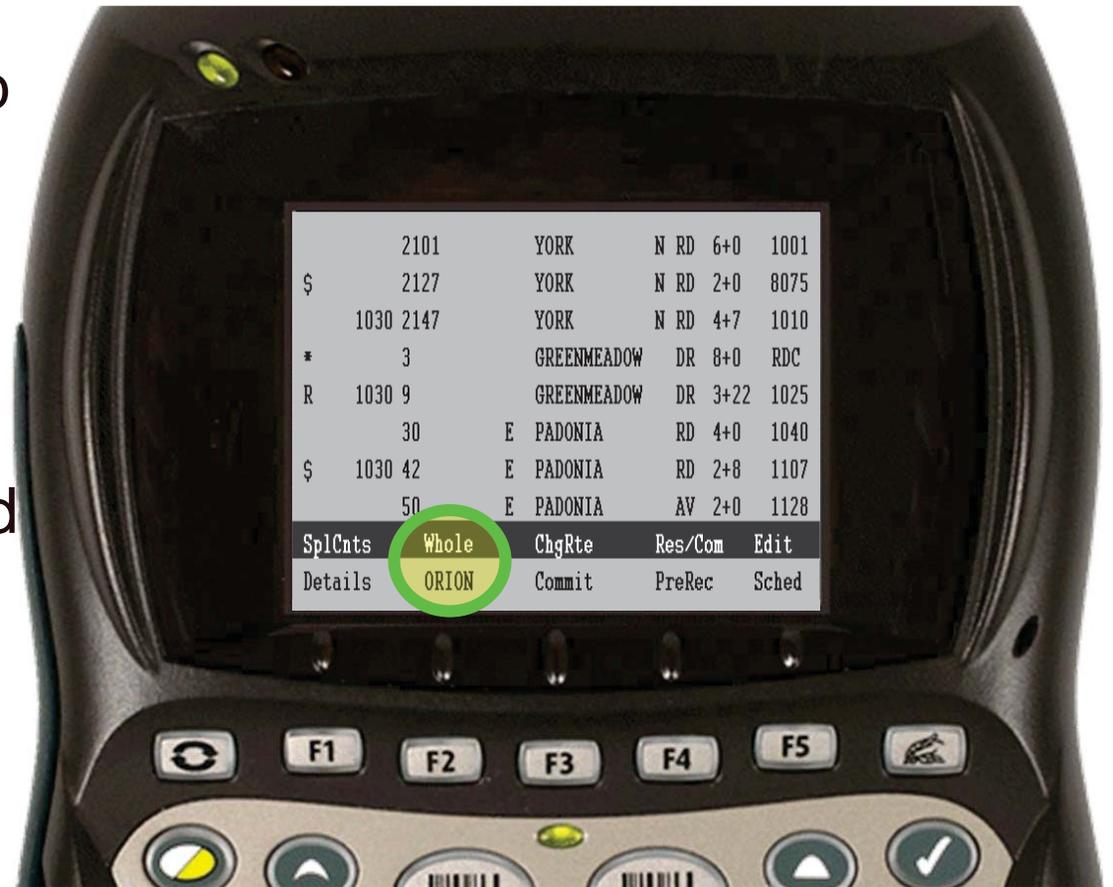


# Optimizations (ORION) Build on the Foundation

---

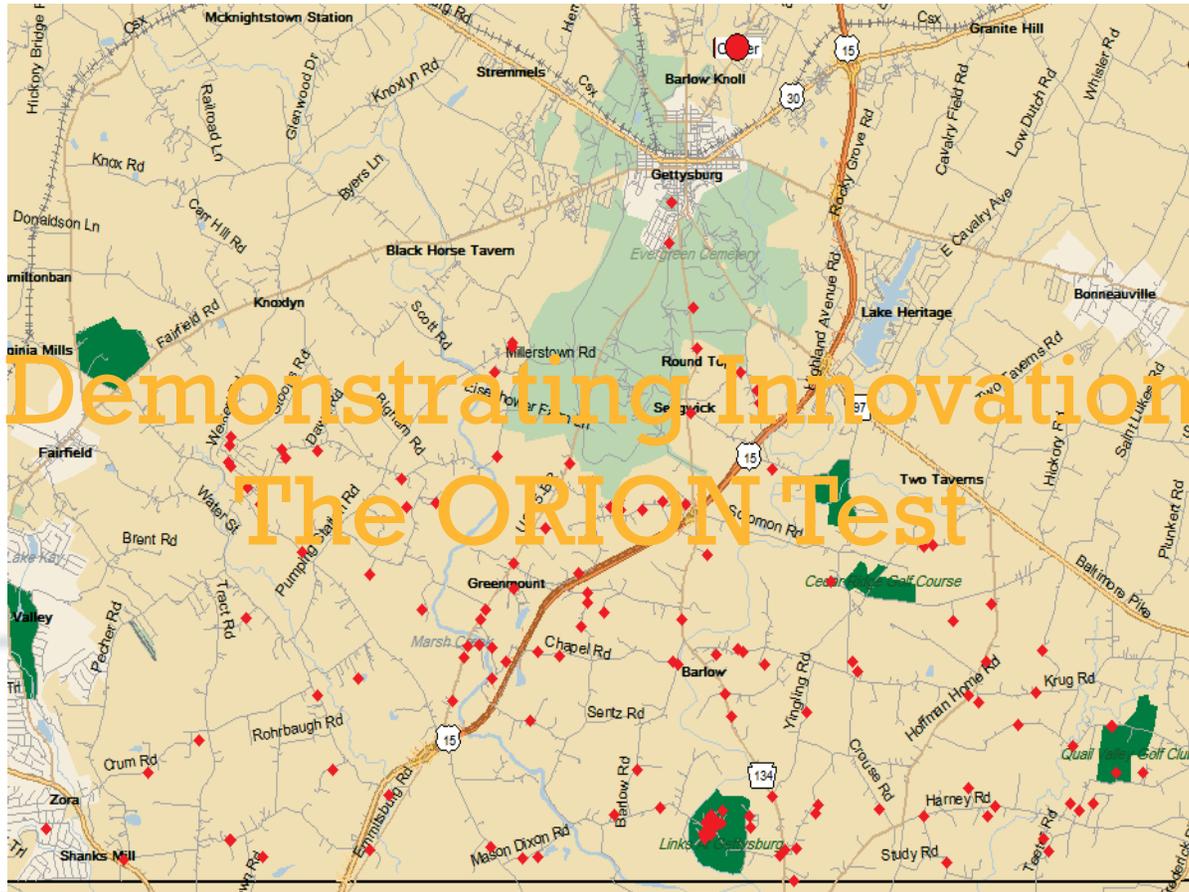


- “Optimal” delivery / pickup order accounts for:
  - Service commitments
  - Individual customer needs
  - Business rules
- Implementable cost based decisions balancing all rules and constraints
- Utilizes customized mapping information



ORION “sorts the list” from a **General** order to a **Specific** order for the day’s specific conditions





What is the most cost effective way to serve these customers?





**NOVA** beta   ANCIEN  
WORLD S   BODY +  
BRAIN   EVOLUTION   MILITARY +  
ESPIONAGE   NATURE   PHY SIC S +  
MATH

Search NOVA Beta   GO   TV  
SCHEDULE   NOVA  
EDUCATION   SHOP NOVA

**COMING  
SOON**   **Making Stuff: Faster**  
Host David Pogue tries to find out if there are physical limits to how fast  
we can go. Airing October 16, 2013 at 9 pm on PBS



**MAKING STUFF / FASTER**

**Working smarter rather than harder**





David Pogue @Pogue

23 Apr

Shooting for NOVA: we're examining the UPS computer model that tries to calculate maximum speed, maximum addresses...

[pic.twitter.com/a9MDq12XLU](https://pic.twitter.com/a9MDq12XLU)

[Hide photo](#) [Reply](#) [Retweet](#) [Favorite](#) [More](#)



24

RETWEETS

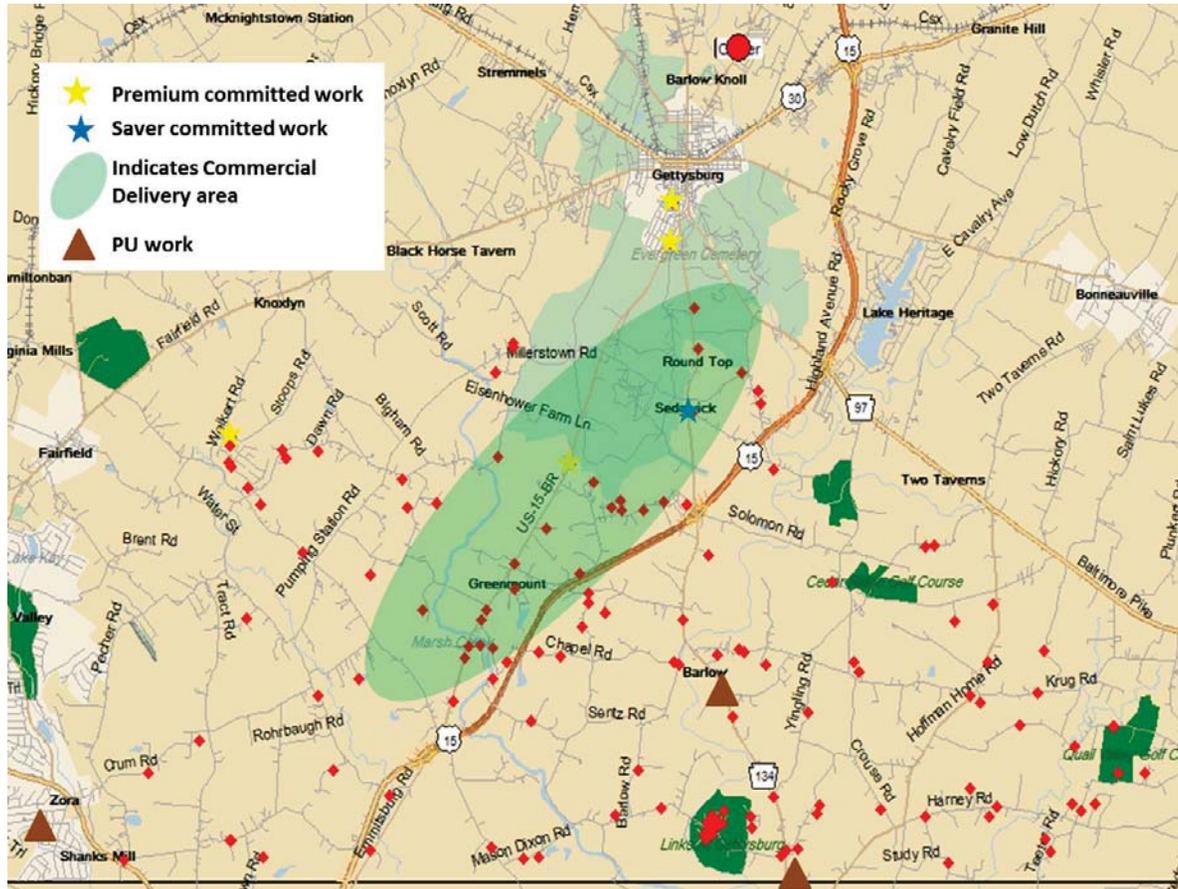
18

FAVORITES



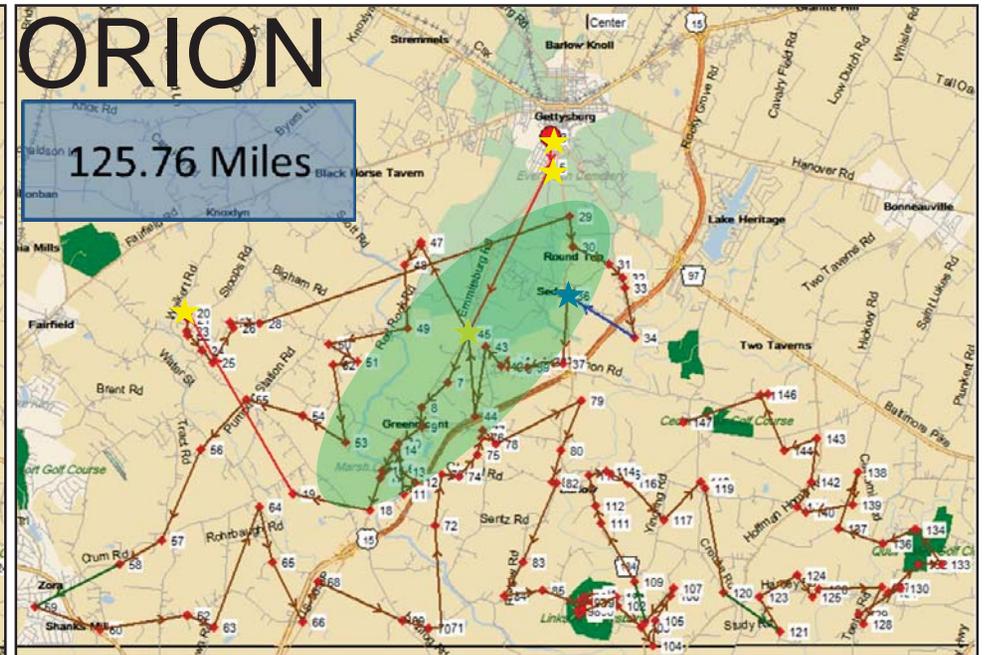
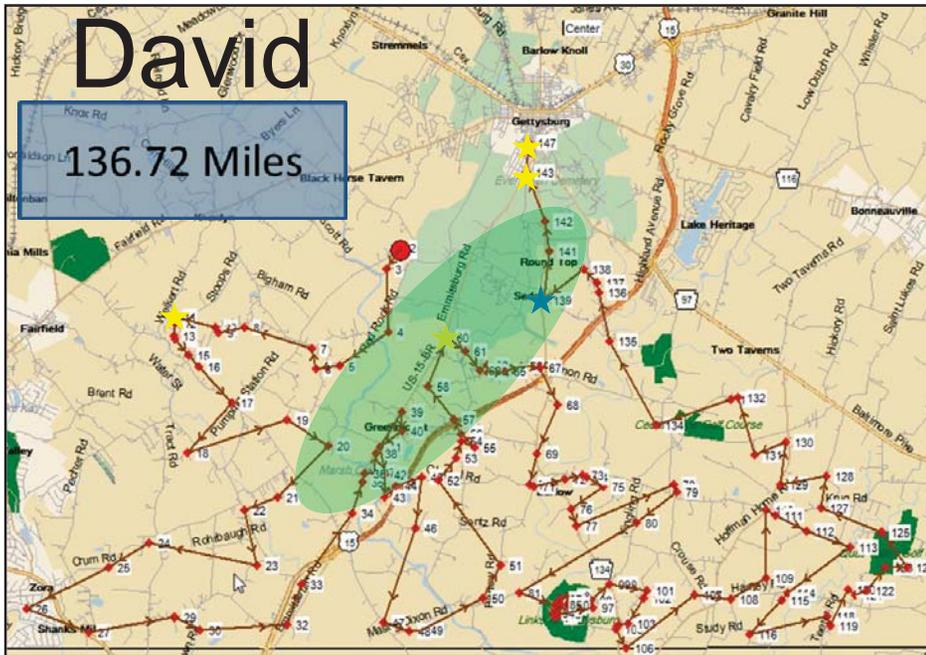
Can David Pogue beat ORION?





# Business rules add additional complexity

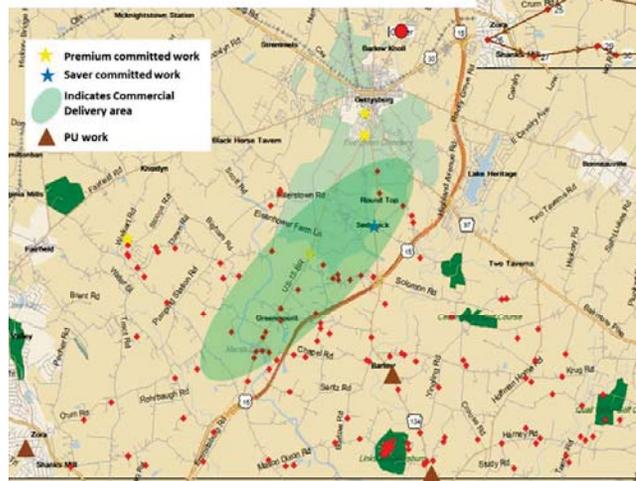




Subtle differences can mean large savings



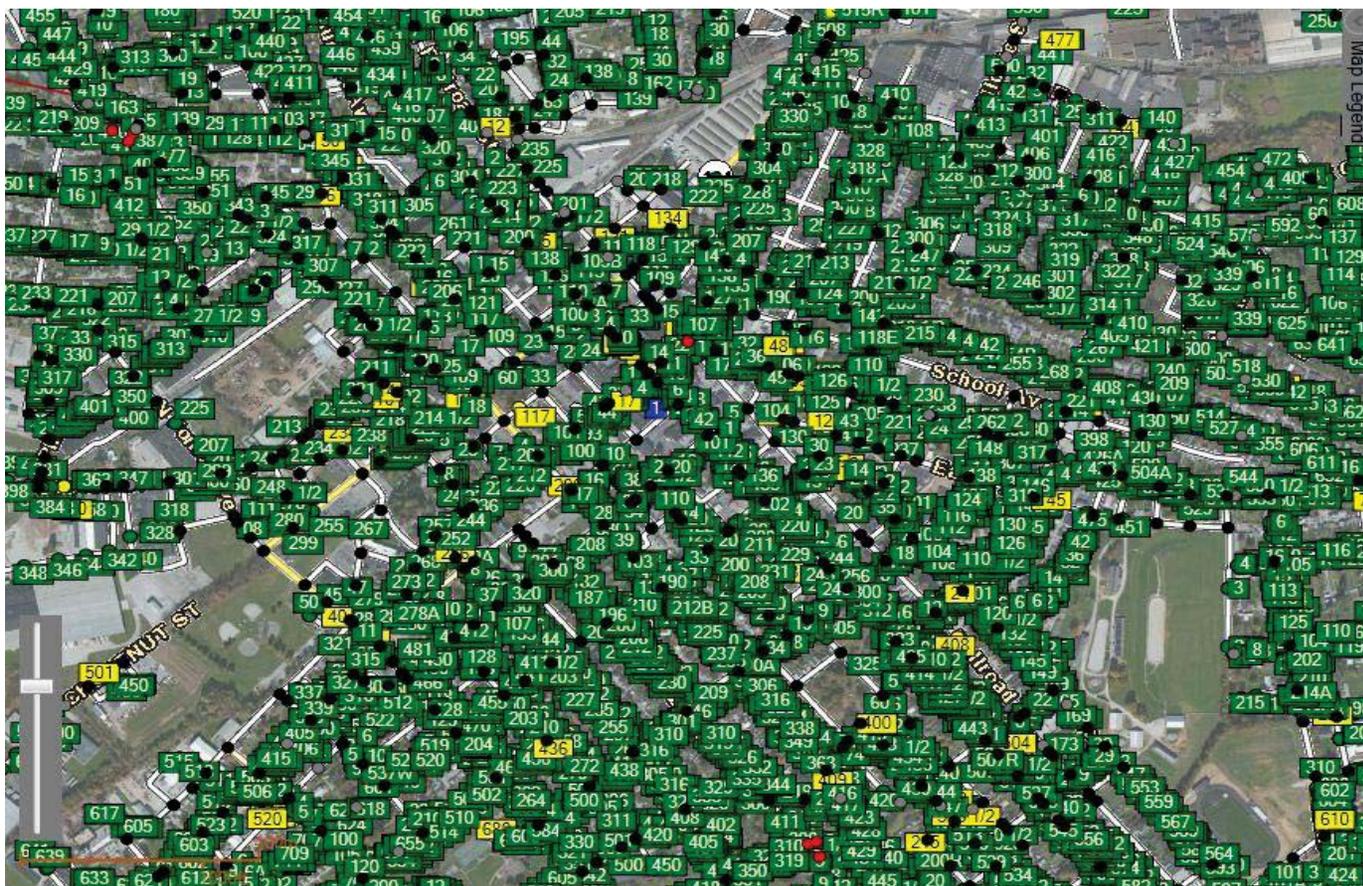
## David's Route Evaluation



- ✓ Delivered four out of five premium packages late
- ✓ Arrived at six businesses after they closed
- ✓ Delivered two Businesses later than Customer's need
- ✓ Two PU's were made outside the planned PU window
- ✓ Ten miles over plan

**ORION reduces cost while satisfying all customer and business needs**

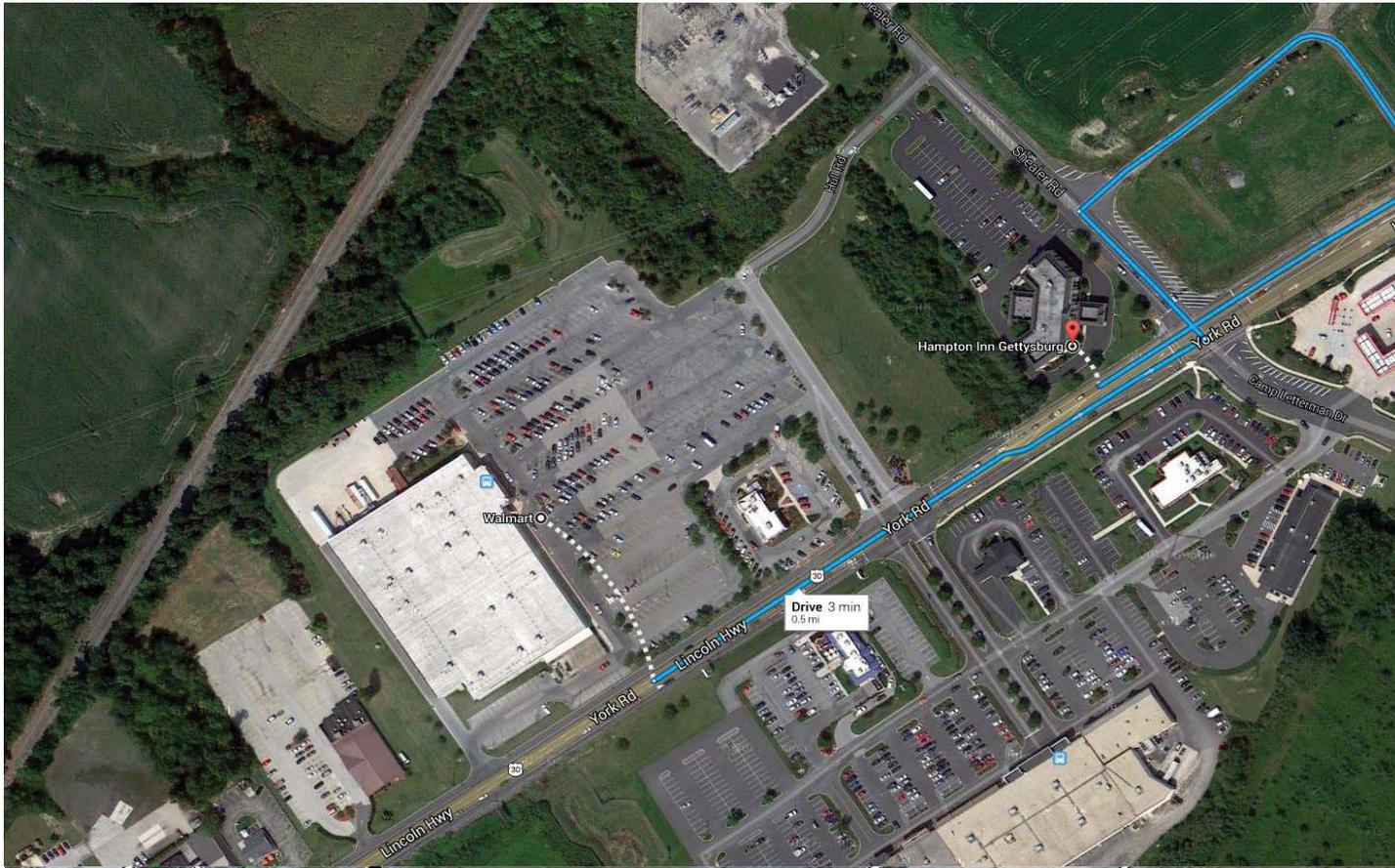




## 250 Million Global Data Points

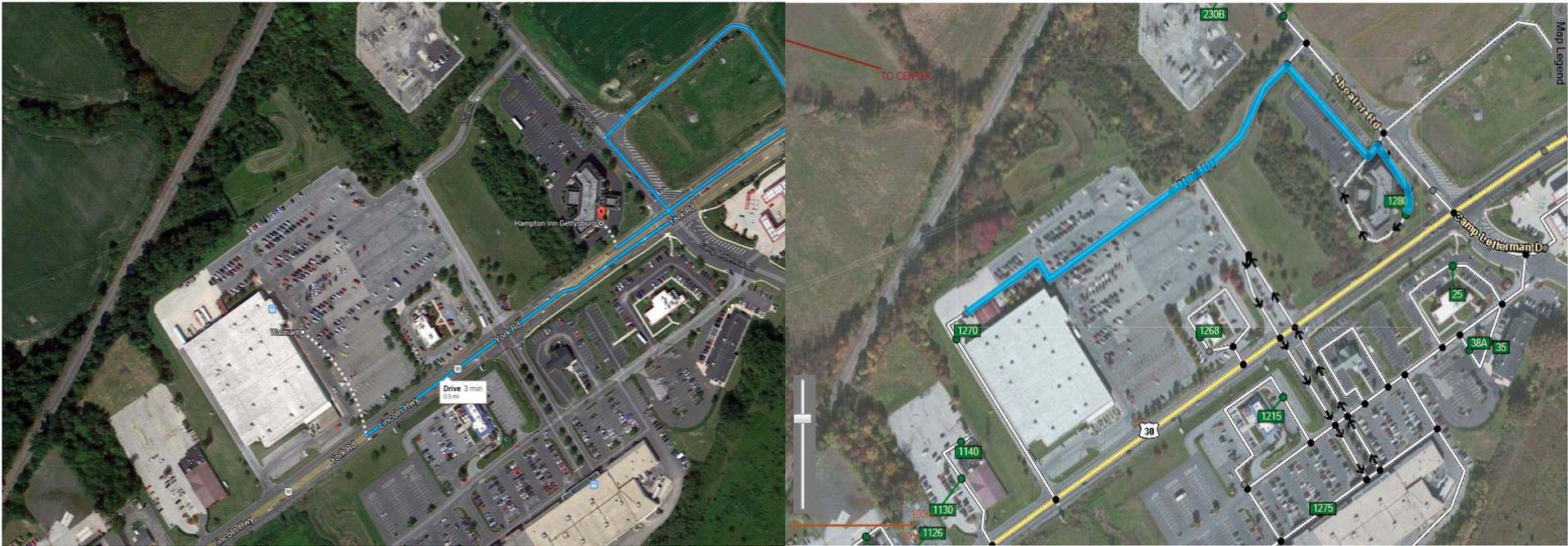


[Slides 19 and 20 were removed due to Proprietary Geographic Information]



**Enriched map data adds to UPS' robust data infrastructure**

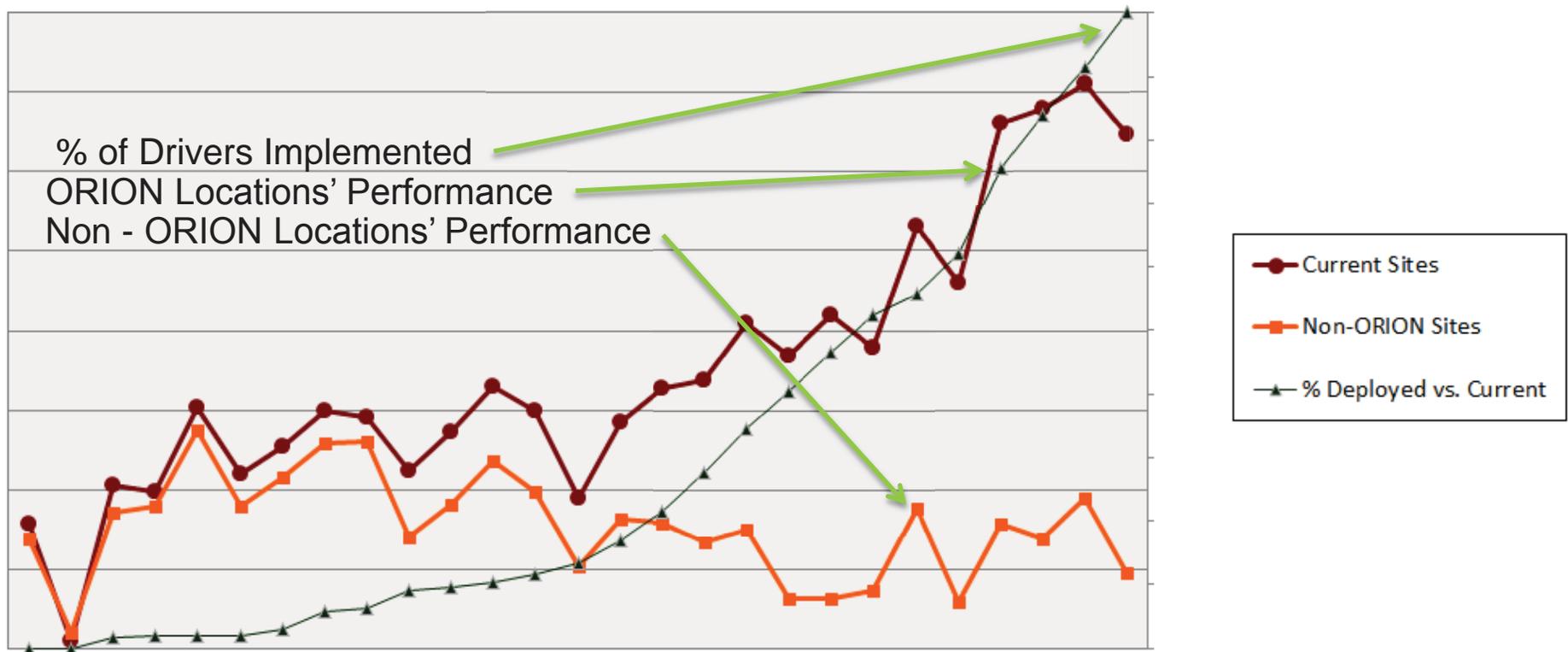




**Enriched map data adds to UPS' robust data infrastructure**



## 2014 Deployment (14,000 Routes)

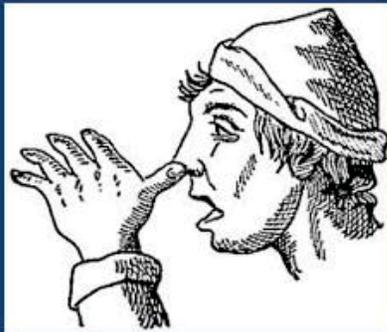


Consistent results from Prescriptive Analytics



# Change Management: Three Levels of Truth

**Ridicule**



**Violent  
Opposition**



**Acceptance as if  
self-evident**





**a trucking company  
with technology**



TM

**a technology company  
with trucks**



**Thank You**