Analysis of Travel Times, Origins & Destinations Solar Eclipse 2017





PRESENTERS

Patrick Brown



Chief Technology Officer

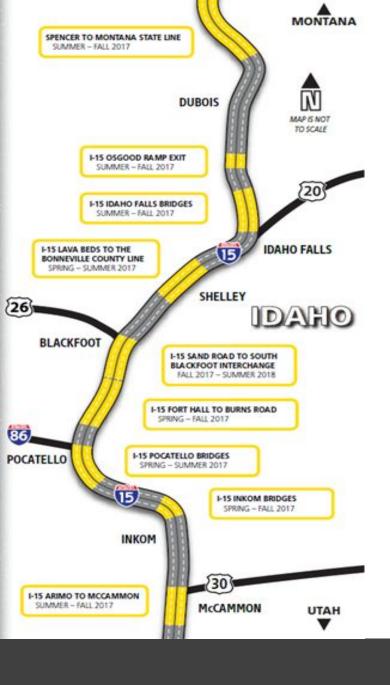
Victor Gill



Chief of Product







I-15 Reconstruction

8 workzones

196 Miles of Road

Impacts to I-15 / US-91 / US-20



http://itd.idaho.gov/i-15construction/



buyncsy | Pulse

Blyncsy Workzone Implementation

60 Blync-1218 Devices

Pulse Analytics

Mobile Application

PCMS Activation





BLYNCSY PLATFORM

DETECTION

MOVEMENT INSIGHT ENGINE

INSIGHT DELIVERY

Interfaces

Data Aggregation & Analytics

Machine & Deep Learning (AI)

Integrations



Blyncsy: How We Do It

WE TAKE SNAPSHOTS TO GET A LOOK AT THE BIG PICTURE





When a bID is sniffed in one place and then another, we note the time and place. It's more like a series of checkpoints, rather than continuous motion tracking.



Piecing together the snapshots from tons of bIDs over time, we can see the bigger aggregate view and deduce travel time, time spent at a location, and lote more.

BLYNCS SENSORS & DATA COLLECTION

Step 1

Our sensor detects the MAC address of a connected device and collects it for transmitting.



0110101101 ————



This data is sent via secure cellular service to our central data tower.



Step 3

The tower relays this data to our servers, where the data is converted from a MAC address to a "Blyncsy ID".









Why it's secure

Our "salt" is proprietary, so no one else can use it to unlock the Blyncsy ID. The "hashing" keeps the MAC address anonymous to Blyncsy. We cannot unlock the MAC address from a Blyncsy ID; the owner of that address holds the key.

How it works

Before the user's MAC address is stored, it is "hashed" and "salted" immediately.



Blync-1218 Re-Identification Sensor

Bluetooth®

WiFi

TPMS

(Tire Pressure Monitoring System)

Solar

Cellular



MOVEMENT INSIGHT ENGINE DATA AGGREGATION & ANALYSIS

Blync-1218*R*Reliability

Speed

Travel Times

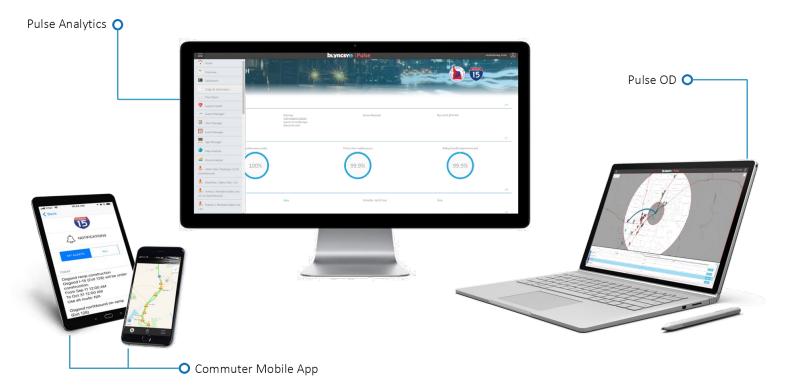
Signal Timings

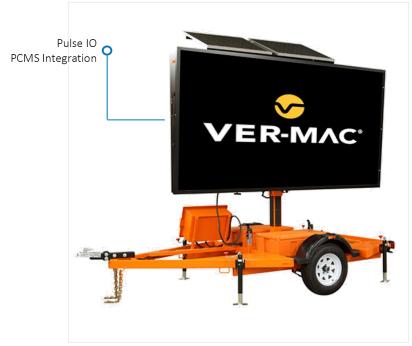


Patterns & Predictions

OD

INSIGHT DELIVERY For Commuters & Analyst





COMMUTER MOBILE APP

Real Time Map

Construction Alters

Delay Alerts

Trip Planner

Subscribe to Work Zone



Free

Category: Navigation Updated: Aug 20, 2017

Version: 1.2 Size: 7.3 MB

Language: English

Seller: Rosemary Brennan Curtin Inc

© 2017 RBCI Rated 4+

Compatibility: Requires iOS 9.0 or later. Compatible with iPhone, iPad, and iPod touch.

Customer Ratings

This application hasn't received enough ratings to display a summary.

Description

The I-15 App includes up-to-the-minute information from the Idaho Transportation Department to help you plan your travel during construction on I-15.

- Current travel times through I-15 construction zones and alternate routes (U.S. 91).

I–15 Support)

What's New in Version 1.2

Bug fixes & feature improvements

iPhone Screenshots



Customer Reviews

Up to date travel time ★★★★ by Jaikele



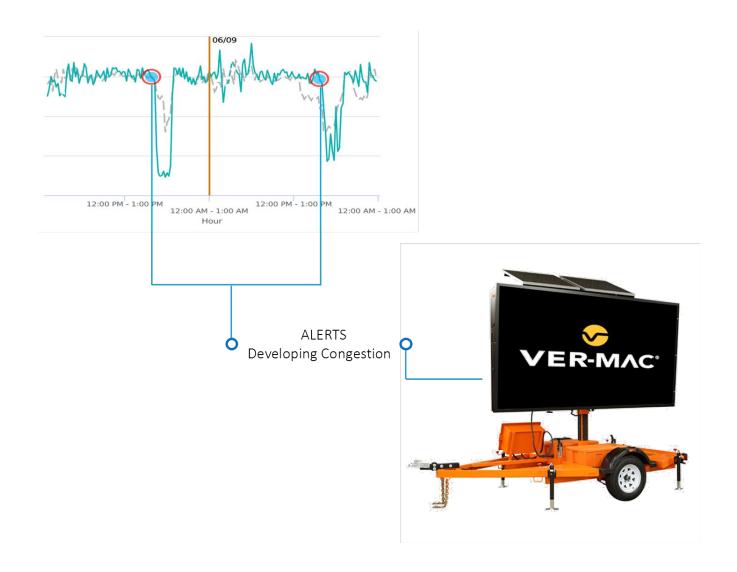
Route Travel Times

PCMS ACTIVATION

Travel Time

Congestion Alerts





PCMS ACTIVATION

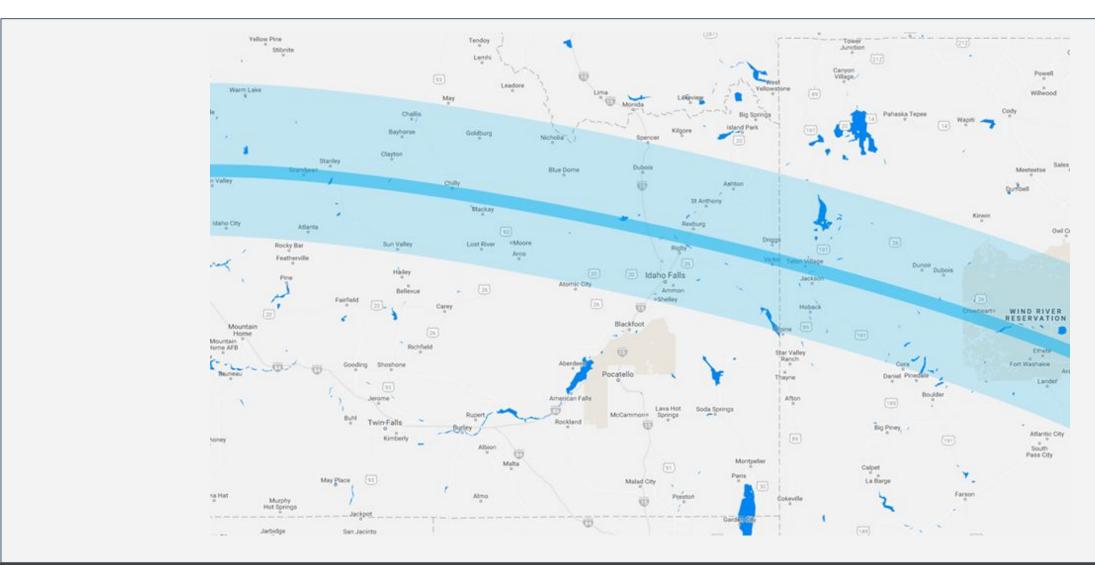
Travel Time

Congestion Alerts





PATH OF TOTALITY IN IDAHO





KEY AREAS OF ANALYSIS

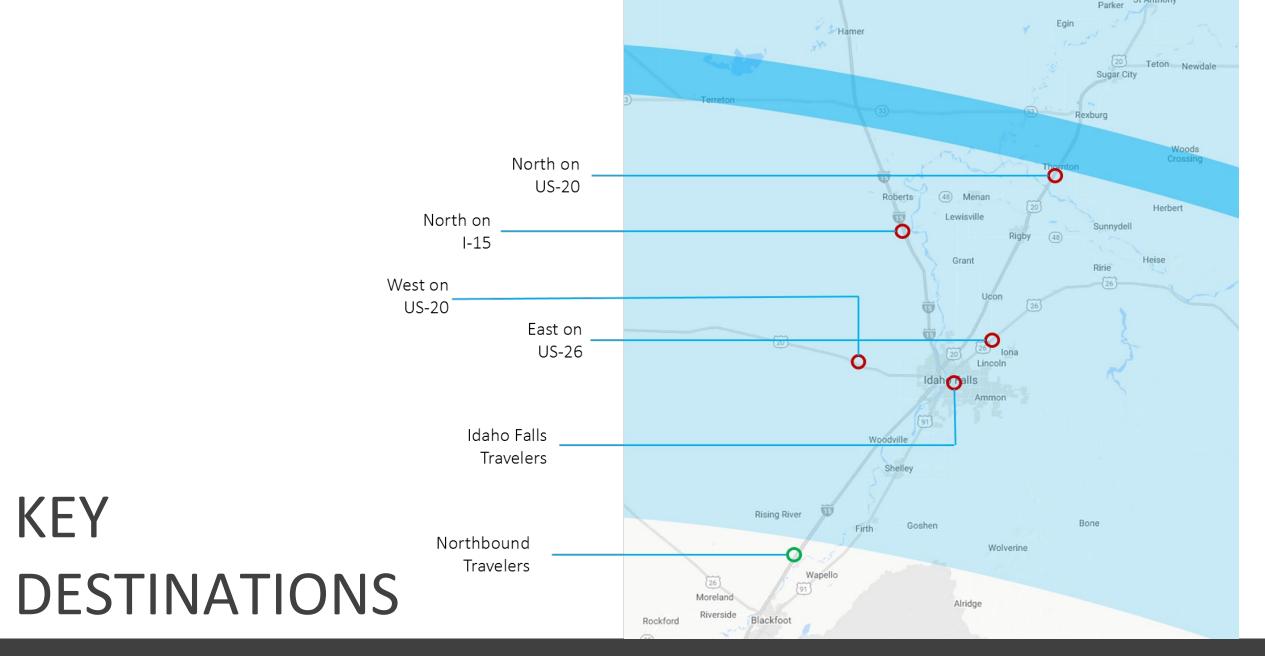
Changes to OD Behavior

Travel Time Impact

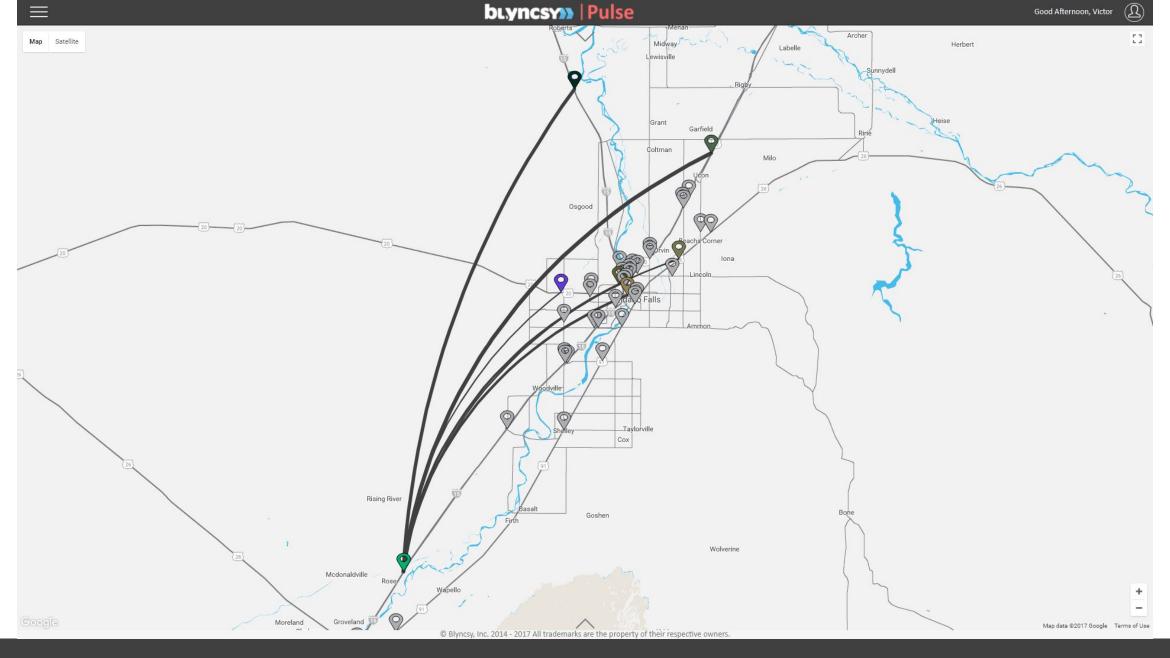


Will Viewers Collect or Spread Out?

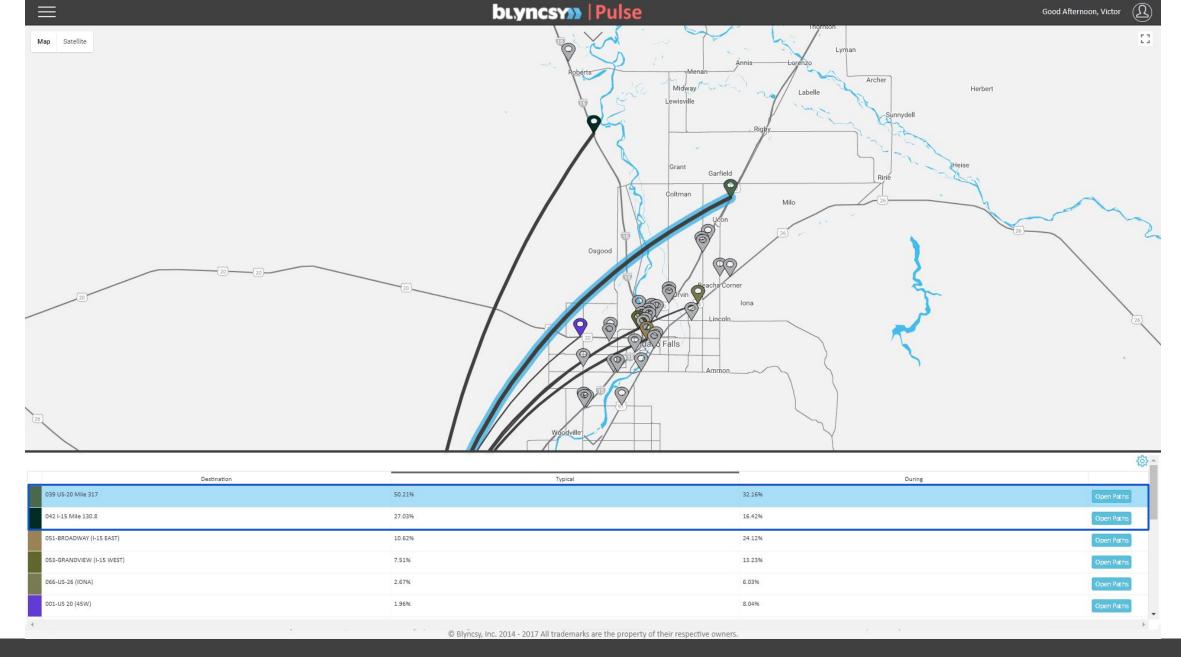




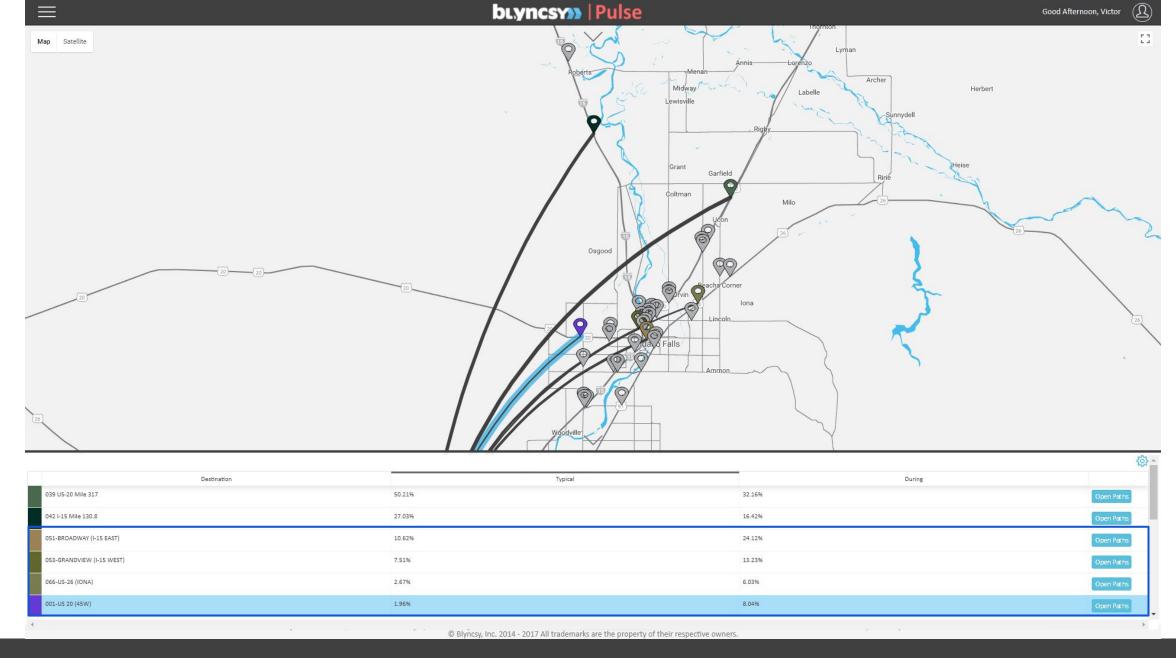












KEY TAKEAWAYS

North on US-20

North on

Event viewers congregated around Idaho Falls

East o

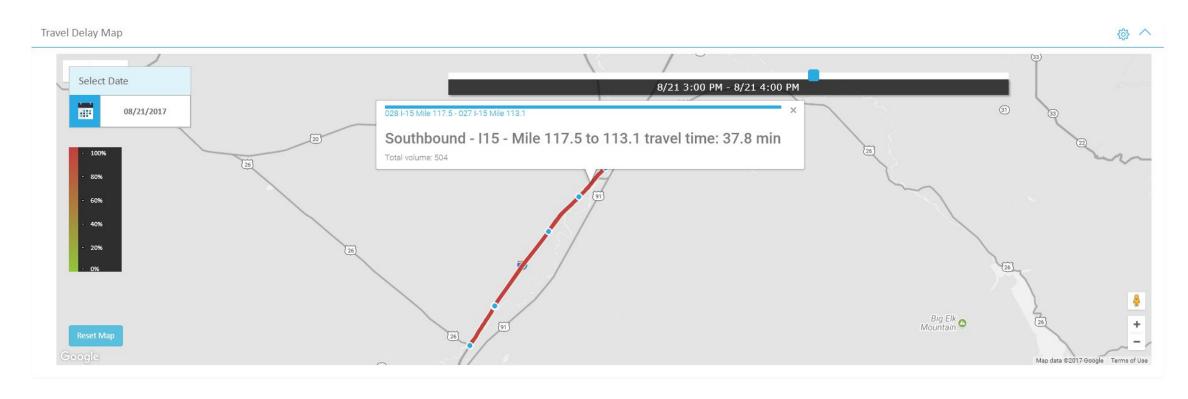
Noteable decrease to realtive travel through daho Falls north

Northbound Travelers



Migration After Eclipse





For a 4.3 mile stretch of road between Idaho Falls and Blackfoot - the travel time took 37.8 (usually 4 mins) minutes with speeds around 7mph



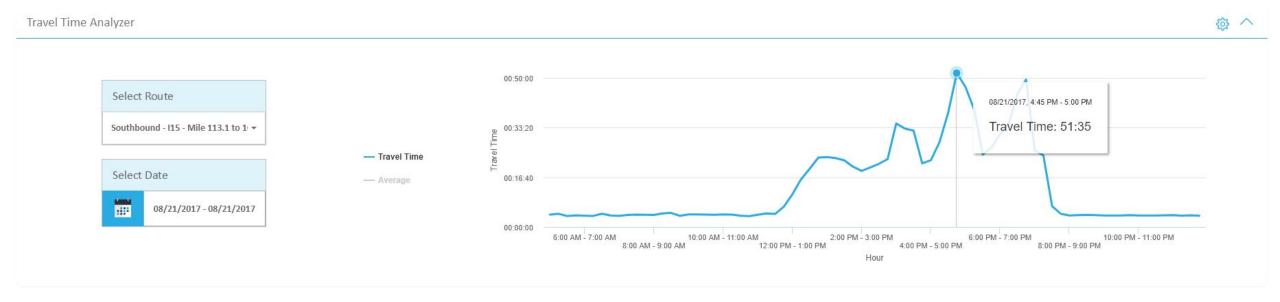


Just after totality we didn't see the magnitude of traffic we thought would develop within minutes.

Congestion increased each hour after totality until about 8pm.

Leaving between 1pm-4pm from Idaho Falls or north of it, was probably the worst traffic for southbound travelers.



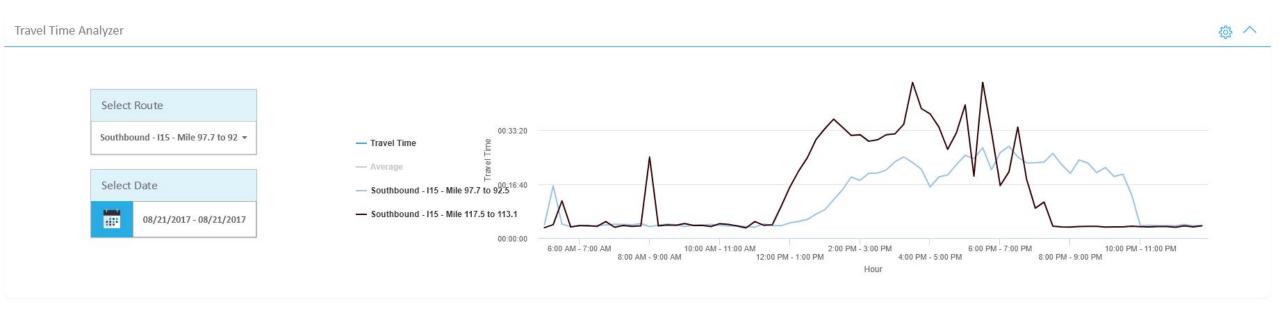


Hypothesis - we would see a mass exodus quickly after the eclipse.

What we actually saw was the delay develop starting at Idaho Falls, propagating south.

As it turns out, the worst congestion near Idaho Falls was after 3pm - a segment expected to take 4 mins was taking over 50 mins.





At 12:15, if you started your trip north of Blackfoot it would have taken 20+ minutes to travel about 4 miles, but if you were south of Blackfoot it only took 5 mins.



KEY TAKEAWAYS

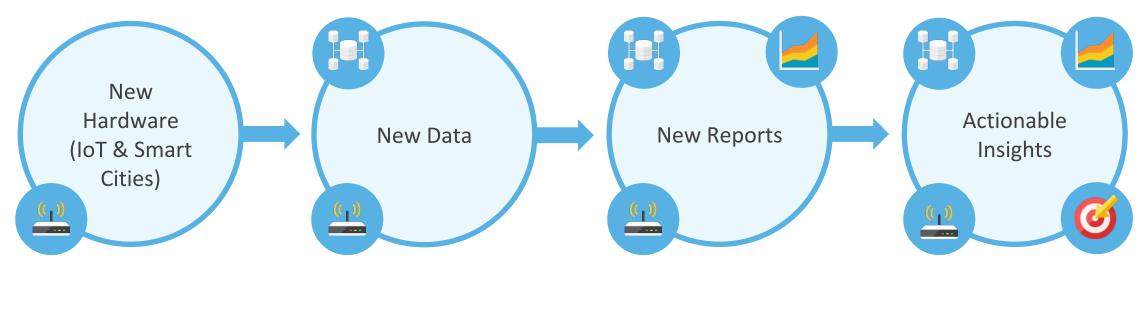
Southbound travelers who viewed the eclipse south of Idaho Falls and left immediately after totality saved hours in travel time.

Traffic compounded over time after totality.





CONVERGED SYSTEMS WILL PROVIDE MORE INSIGHTS



Smart City Hardware IoT / Smart City
Data Set

Pulse

Pulse Predictions



WHAT WE'RE WORKING ON

