

Emerging Trends in Multimodal Data Collection

Presented by:
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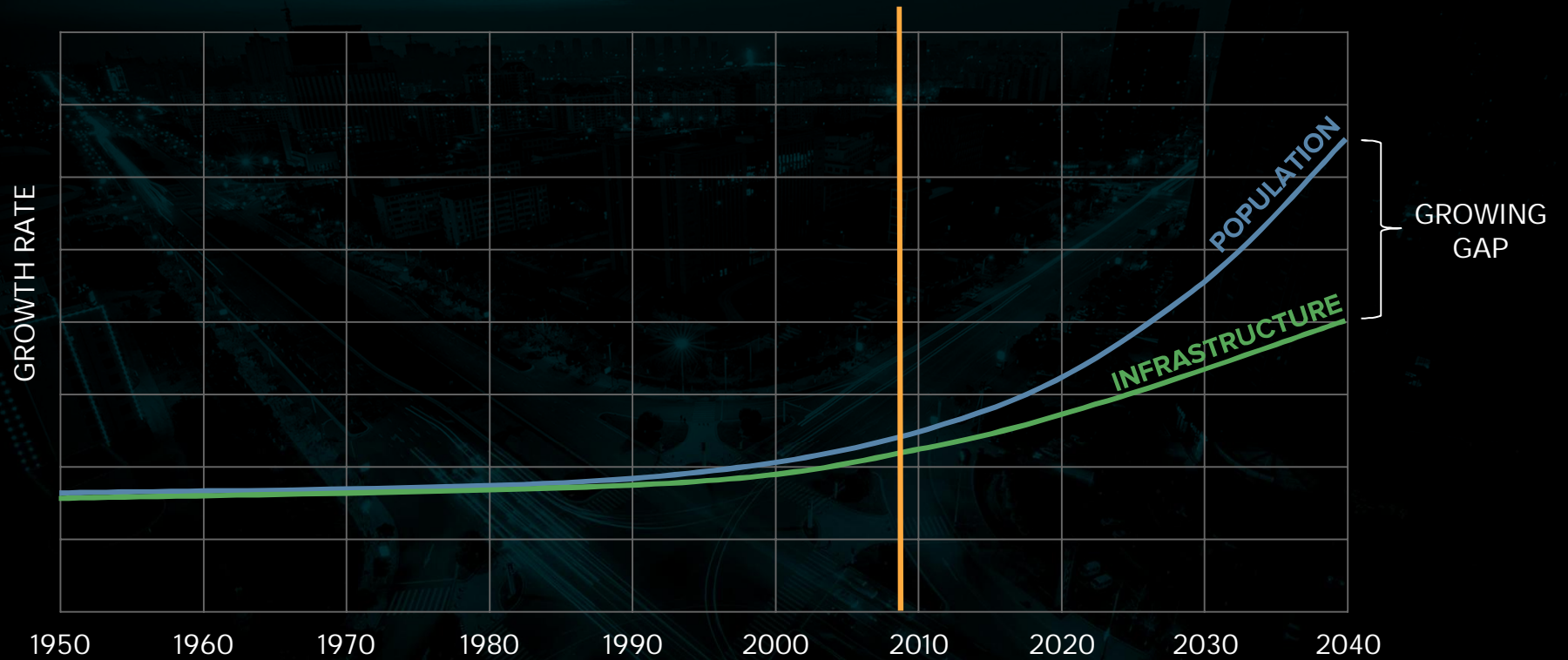
Texas ITE Annual Meeting
September 22, 2016

miovision
rethink traffic



WE'RE ON
THE EDGE
OF AN
URBAN REVOLUTION

THE FIRST TIME EVER
MORE PEOPLE LIVE IN CITIES
THAN ANYWHERE ELSE

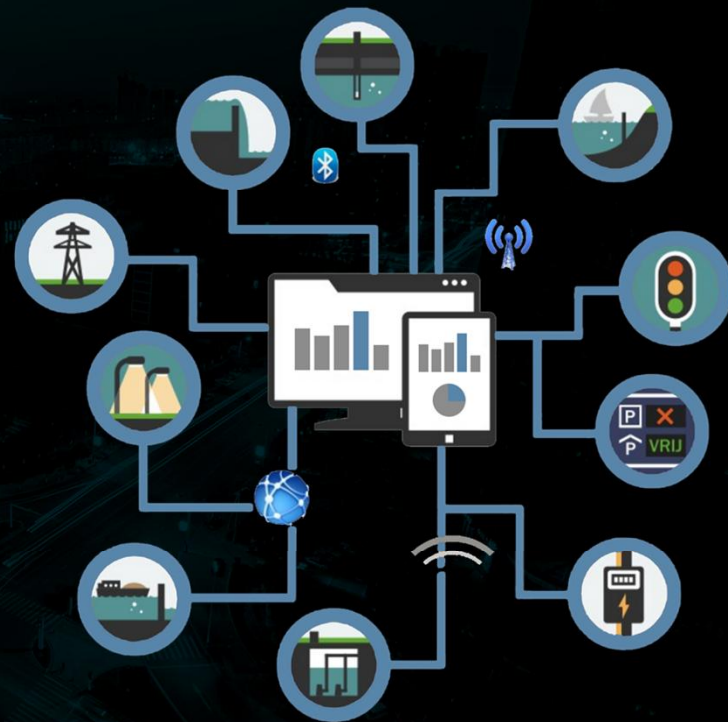


A background image showing a group of people working together at a table. A laptop is open on the left, displaying a map or diagram. Several hands are visible, some pointing at papers or the laptop screen. The image is dimmed and has a dark blue overlay.

WE NEED SMARTER CITIES
DESIGNED FOR PEOPLE

NOT FOR THROUGHPUT
SPEED
LEVEL OF SERVICE
TRAFFIC

Data is central to how cities plan, build, monitor, and operate their infrastructure.





AND
WE HAVE A
REAL DATA SHORTAGE

A dark, blue-tinted photograph of several cyclists riding away from the camera on a road. The cyclists are wearing helmets and reflective gear. The image is used as a background for the top half of the graphic.

GROWTH FORECASTS ARE MADE

WORSE BY

INCOMPLETE DATASETS

The background of the slide is a dark blue-grey color with a faint, light-colored map grid. Several location pins are scattered across the map, with a cluster of three larger pins on the left side and several smaller ones elsewhere.

We need to know that we're:

- looking at the right data,
- asking the right questions, and
- interpreting the data accurately.

A photograph of a city street in Chicago, viewed from behind a person riding a bicycle. The cyclist is wearing a dark tank top, blue shorts, and a black helmet. They are riding on a designated bike lane marked with white paint and a bicycle symbol on the pavement. To the right of the bike lane is a car lane with several vehicles, including a dark sedan and a white SUV. In the background, a silver train is traveling on an elevated track. The city skyline is visible in the distance. The image has a dark, semi-transparent overlay.

CASE STUDY

BIKE FRIENDLY CHICAGO

OVERVIEW

Today, 60% of riders won't ride due to safety risk.

By 2020, Chicago will develop a 645-mile network of on-street bikeways.

Much of the infrastructure development is focused on Complete Streets projects.



BIKE
FRIENDLY
CHICAGO

FILLING THE GAPS TO REACH THE GOAL

Major gaps determined in current infrared and tube data collection tools.

Lack of verifiable data.

More multimodal data required.

Crash and count data required.

Need for safer tool deployment.

Existing methods not working.

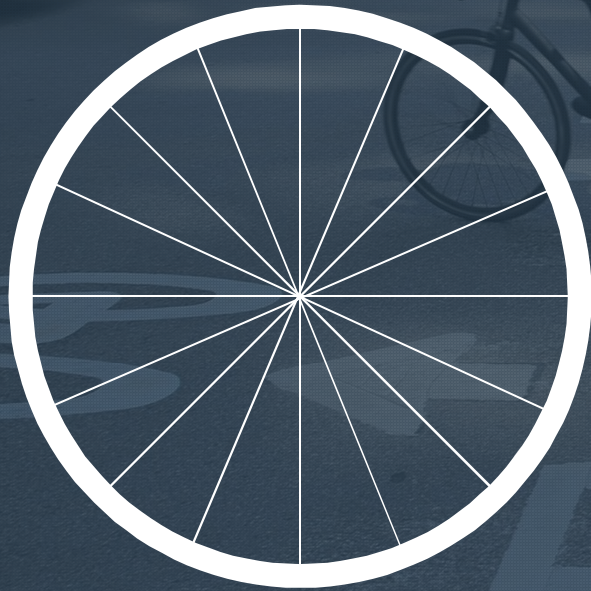
MAKE IT SAFER TO DEPLOY EQUIPMENT

A man wearing a high-visibility yellow and orange safety vest, safety glasses, and gloves is working on a traffic light pole. He is holding a tool, possibly a wrench, and is focused on the equipment attached to the pole. The background shows a street with traffic lights and some vehicles, suggesting a construction or maintenance site.

"I felt that not only would the data be more accurate, but it would be safer for us that we're not in the middle of the road trying to nail down a tube."

Cindy Fish
Owner, Fish Transportation Group

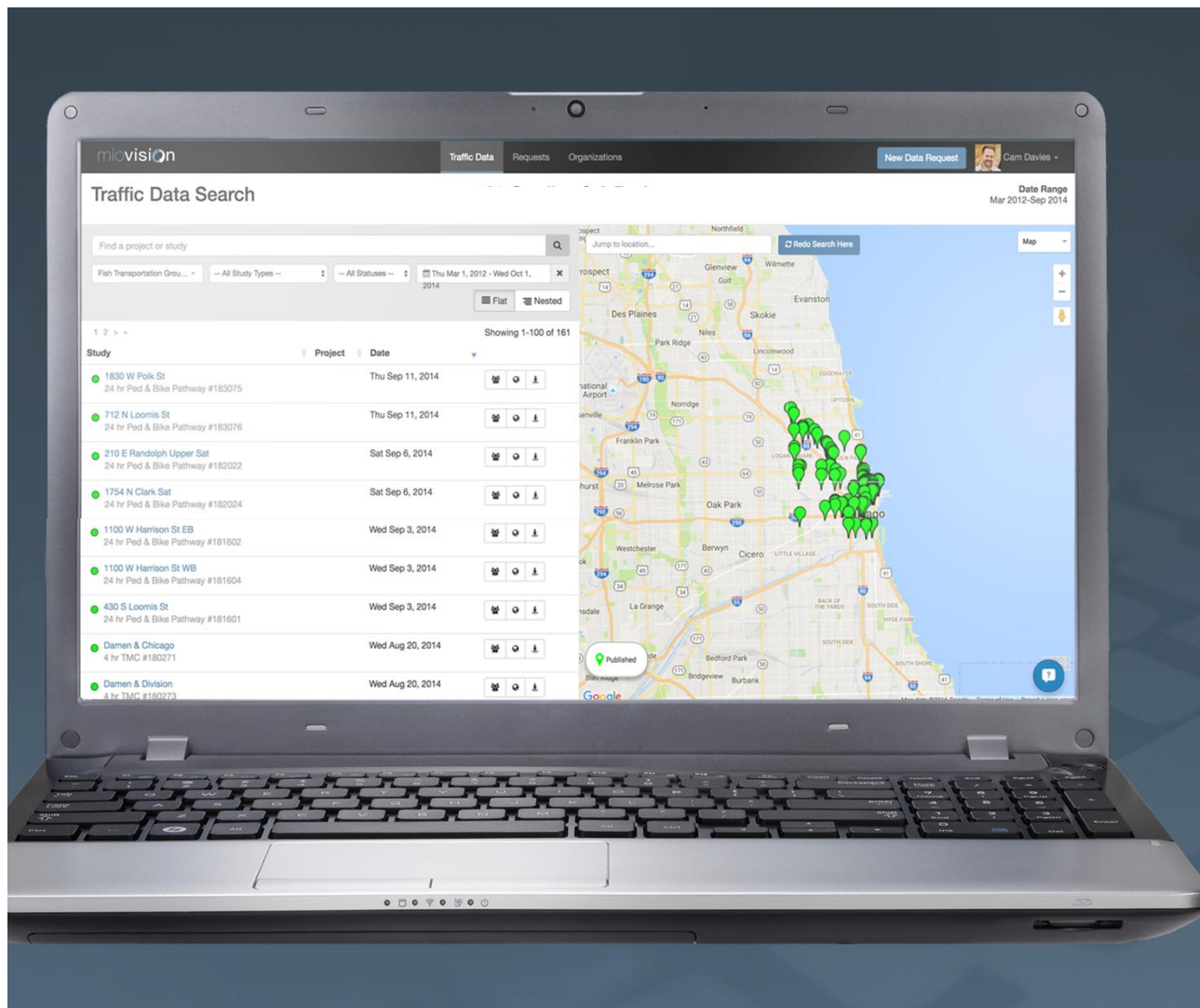
FILLING THE GAPS IN THE NETWORK



It's **not** only about volumes

Chicago used three types of data to determine cycling routes where riders faced the **greatest exposure**:

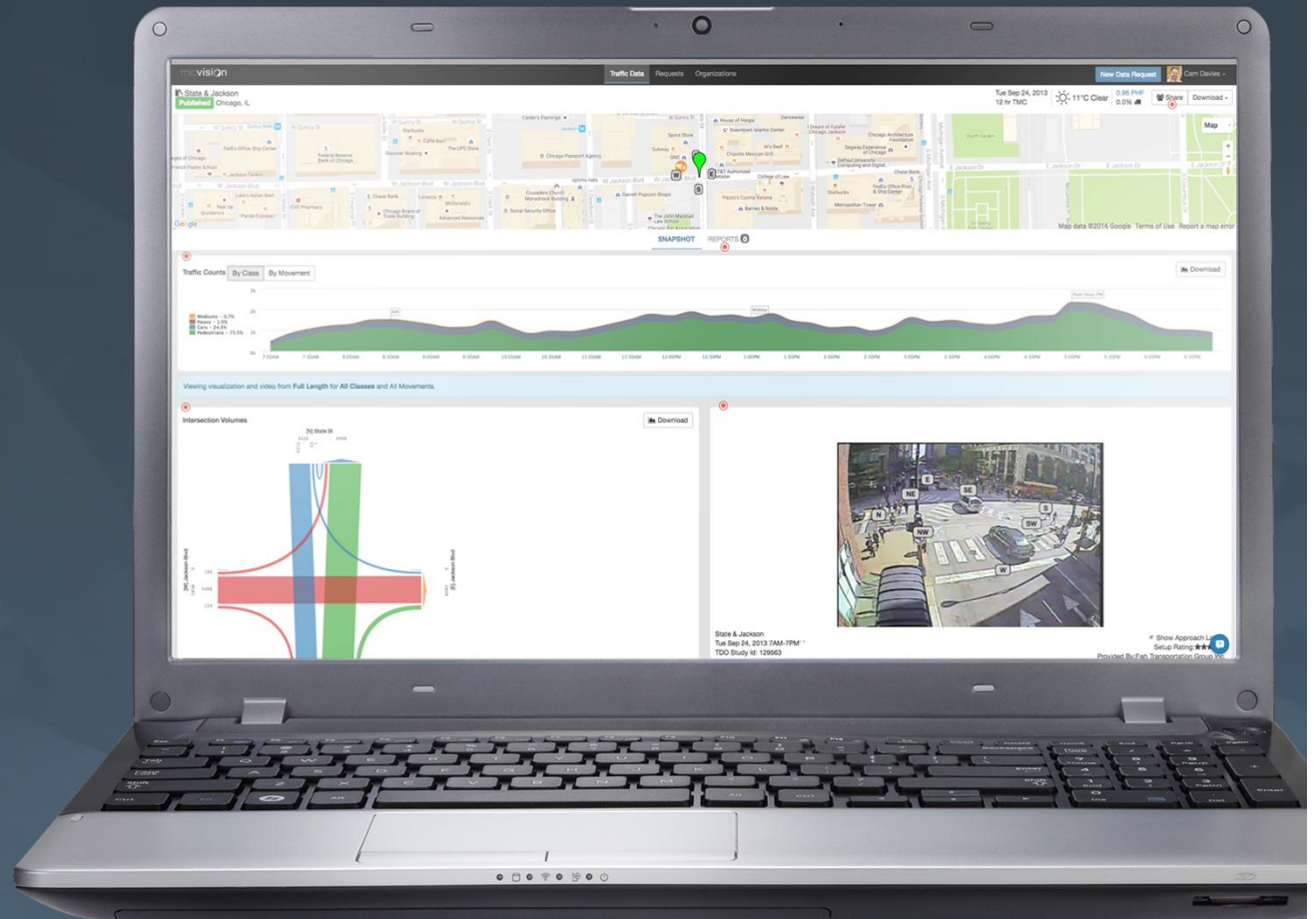
- Classified motor vehicle data
- Bike and ped data
- Crash data

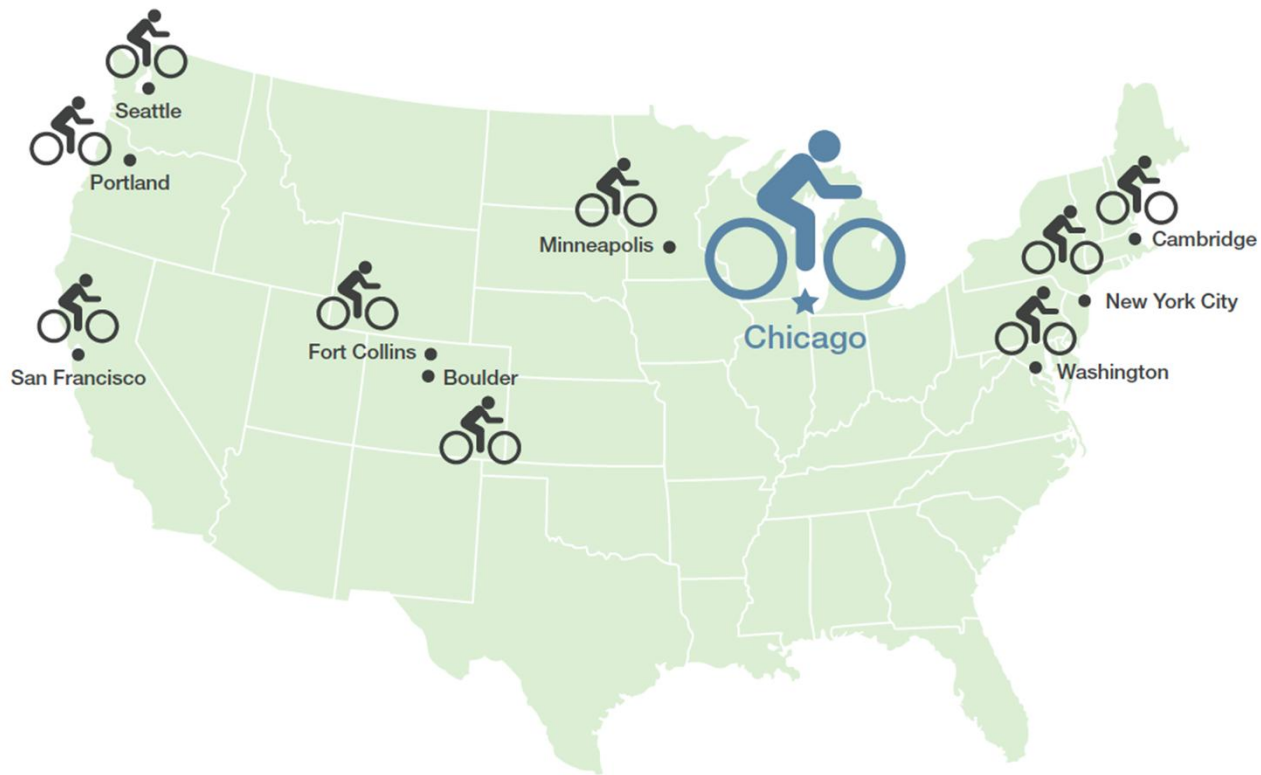


500+ locations in two years.

100 focused in the downtown core.

Today, Chicago has more than **200 miles** of on-street protected, buffered and shared bike lanes.



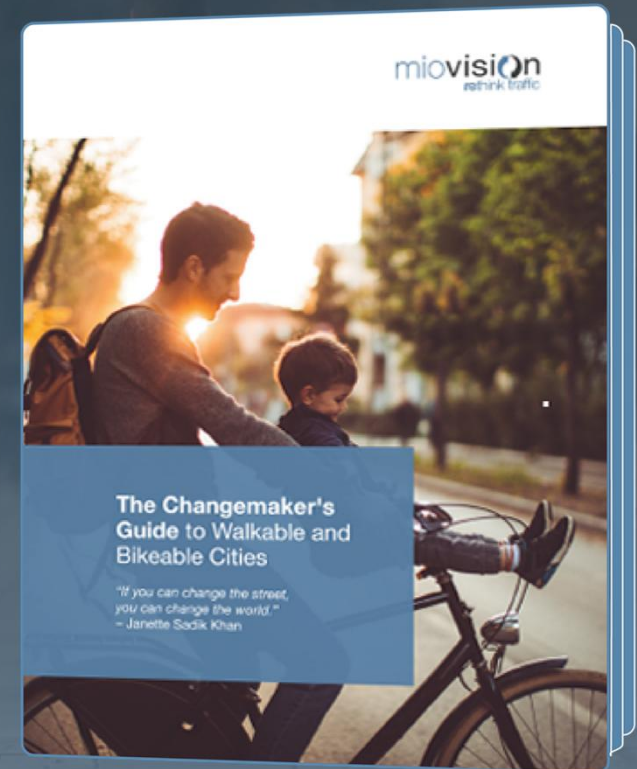


Chicago is currently ranked as the #2 city for cycling in the United States

For more information on Chicago and other Walkable and Bikeable City Info:

- Objection Handling
- Key Metrics to Measure
- Ped and Bike Masterplan Template
- Establish a Count Program
- Technology Overview

miovision.com/changemaker



ROADSIDE DATA COLLECTION IS TIME CONSUMING, BUT NECESSARY

IT'S OUR RESPONSIBILITY TO MAKE IT SAFE
TO MINIMIZE TIME IN FIELD
TO IMPROVE EFFICIENCY
TO REDUCE WASTE



Field set-up and
Adjustments



Equipment
Checks



Accidents or
Construction



Unexpected
Weather



Changing Data
Requirements



CUT DOWN
ON TIME IN
THE FIELD

INCREASE
SAFETY



Designed and built with a
decade of **engineering**,
quality assurance and
experience under its hood.



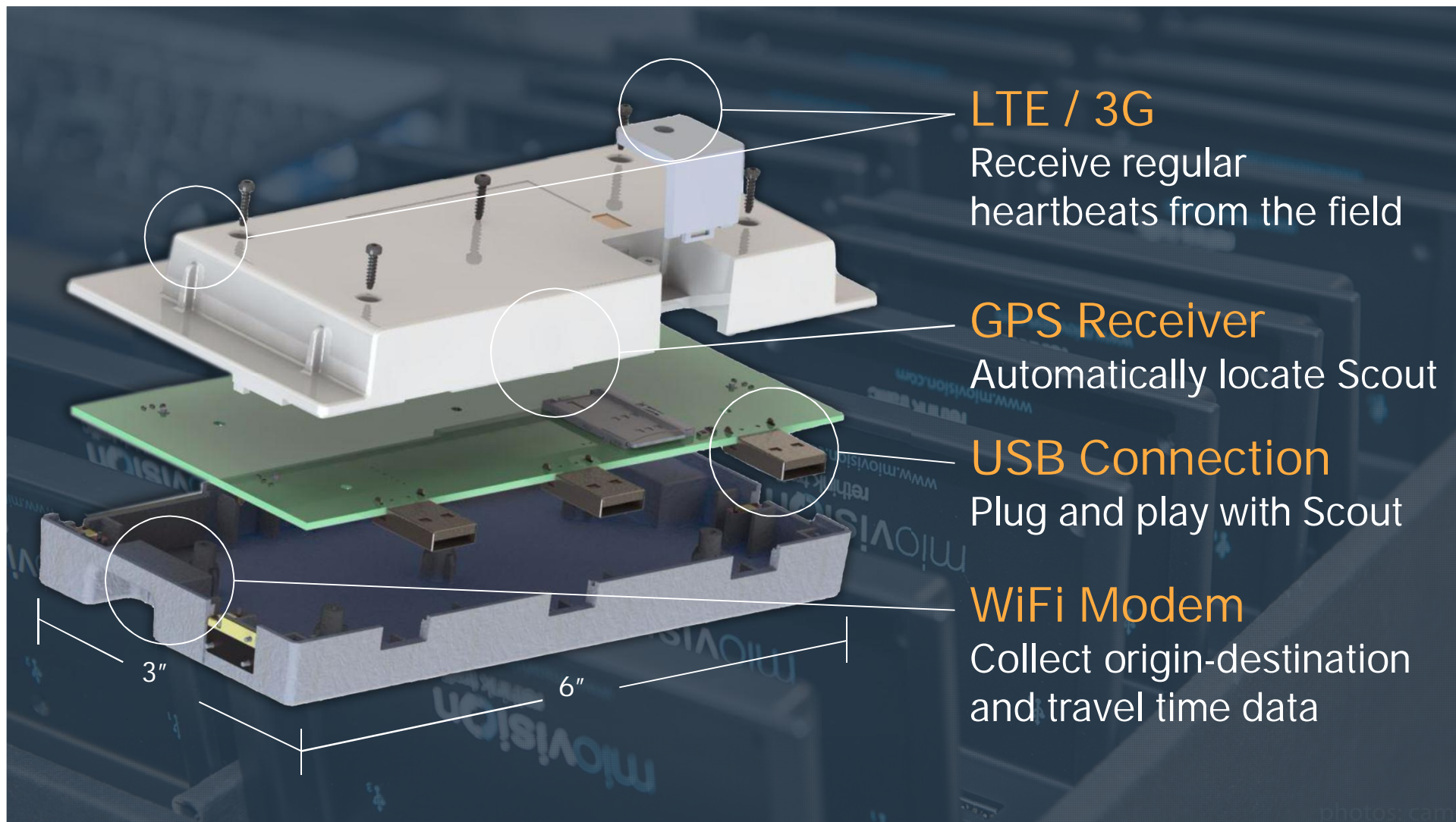
Introducing



SCOUT CONNECT ADAPTOR

Reduces time in field and
adds cutting edge data
collection technology to
Scout.





LTE / 3G

Receive regular heartbeats from the field

GPS Receiver

Automatically locate Scout

USB Connection

Plug and play with Scout

WiFi Modem

Collect origin-destination and travel time data

A woman in a dark blazer is pointing her right index finger towards a large digital display. The display shows a complex interface with various data visualizations, including a line graph with multiple colored lines and a map showing a city street layout. The background is dark and slightly blurred, suggesting an office or meeting room environment.

SUCCESSFUL
PROJECTS
REQUIRE BETTER
COLLABORATION



Introducing MIOVISION CENTRAL

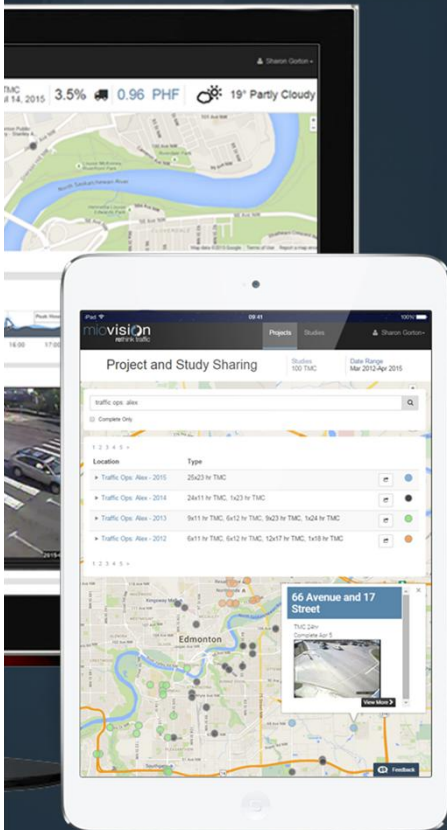
Getting the data should be **easier**.
Connecting stakeholders should be **simpler**.
Now it is.

Introducing



MIOVISION CENTRAL

Powerfully simple data reports, visualizations, and collaboration tools that **underpin successful projects.**

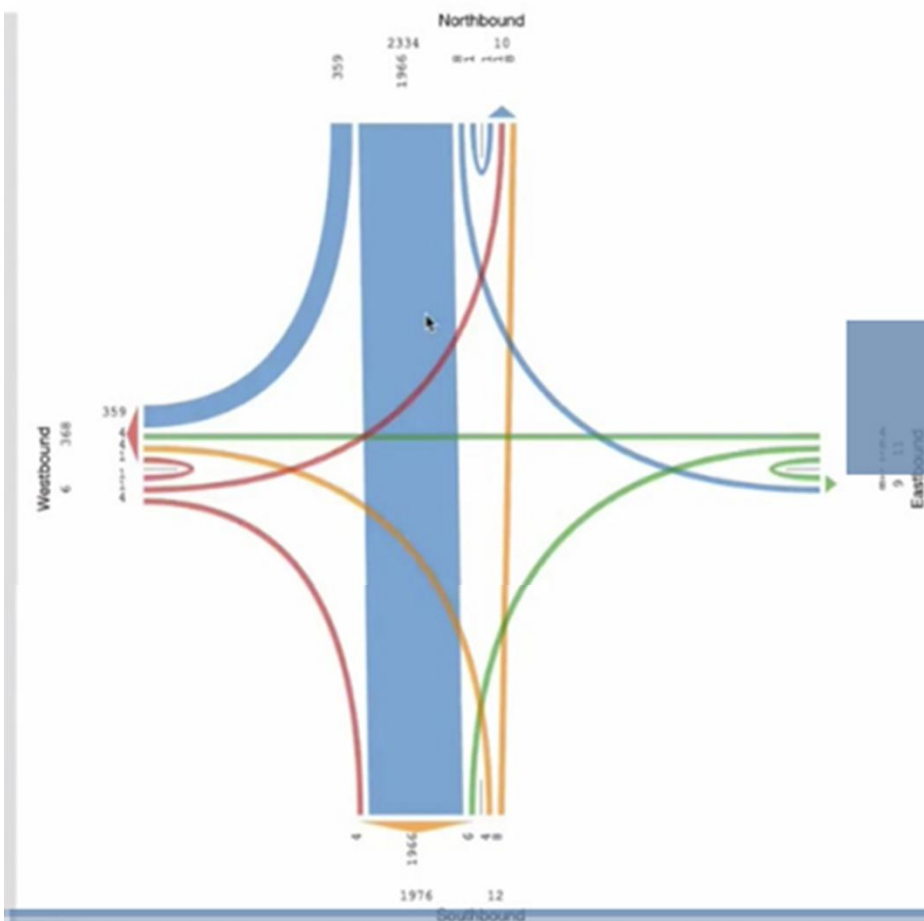


SCHWARTZ-BRONX NY
2-VAN NEST AV AT MATTHEWS AV13 hr TMC
Thu Nov 12, 2015

☀ 8°C Clear 3.7% 🚚 0.89 PHF

Share 3

Download ▾



Peak hour factor

| Scope | Time | Count | PHF |
|-----------|------------------------|-------|-------|
| Peak Hour | Thu Nov 12, 2015 07:30 | 418 | 0.886 |
| AM | Thu Nov 12, 2015 07:30 | 418 | 0.886 |
| PM | Thu Nov 12, 2015 16:45 | 291 | 0.886 |
| Midday | Thu Nov 12, 2015 13:45 | 235 | 0.675 |

An aerial photograph of a city at dusk or dawn. The sky is a mix of dark blues and purples. In the foreground, a multi-lane highway interchange curves through the city. To the left of the highway, there are several tall, modern apartment buildings with many windows. To the right, there are more buildings, some with red-tiled roofs. The overall scene is a dense urban landscape.

Roman Prikhodko
Miovision

THANK
YOU