

Trends in Real-Time Information Systems for Transit in the U.S.

Including the Role of Non-Traditional Information Outlets

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Topics

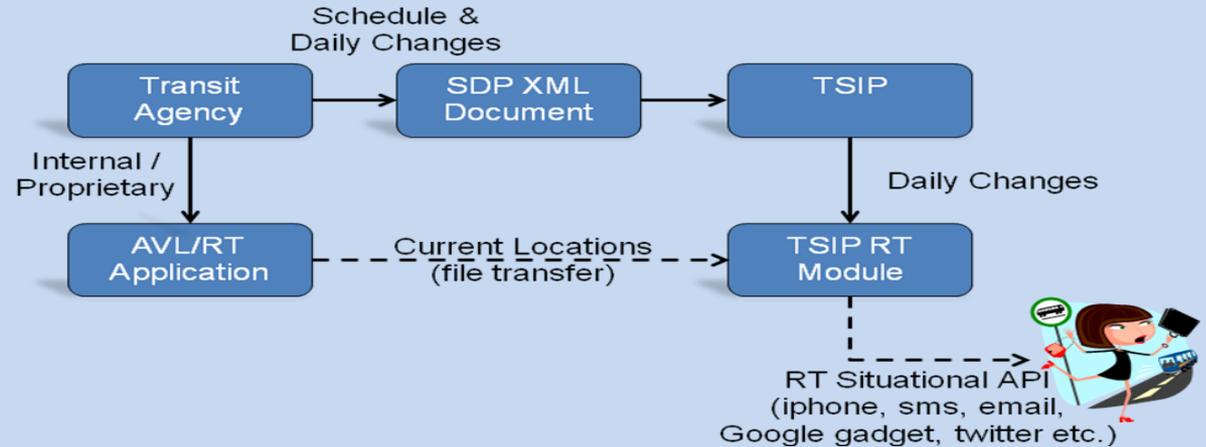
- Public Transport Data Fusion:
 - Real-time, situational status
 - Trip Planning Services
- Open Data and Non-Traditional Information Outlets
 - New Trends: “crowd sourcing”

Real-Time Public Transport Data Challenges

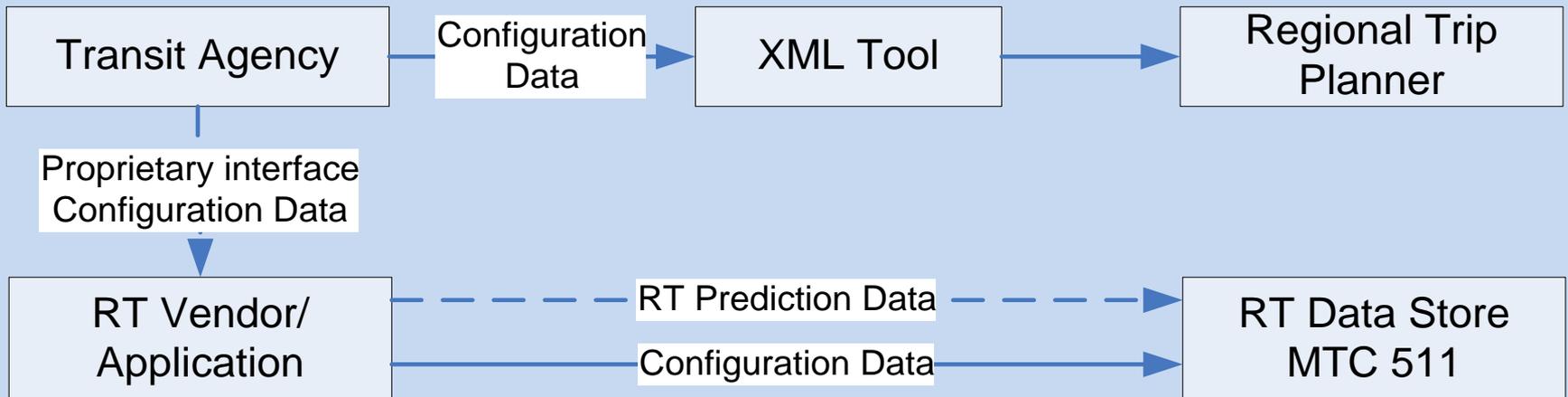
- Integrate multiple public transport modes
 - Bus, commuter bus, rail, subway, light rail, ferry
- Fuse data from diverse sources
 - Traffic, signal control
 - Incident, situational status
 - Emissions
 - Parking status

Approaches to RT Data Acquisition & Processing

New York State Implementation Strategy

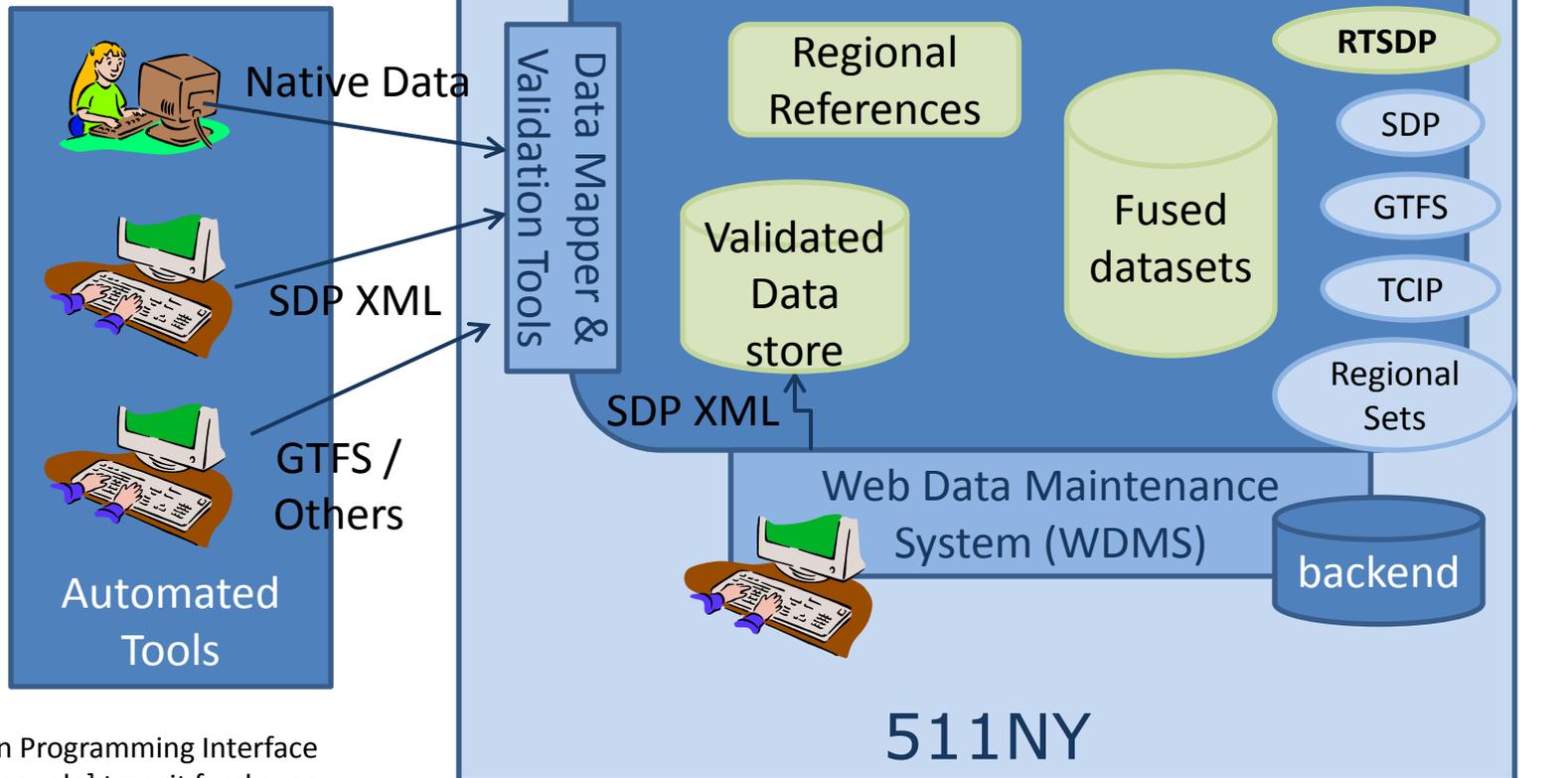


San Francisco Bay Area (MTC) Implementation Strategy



NYSDOT TSIP

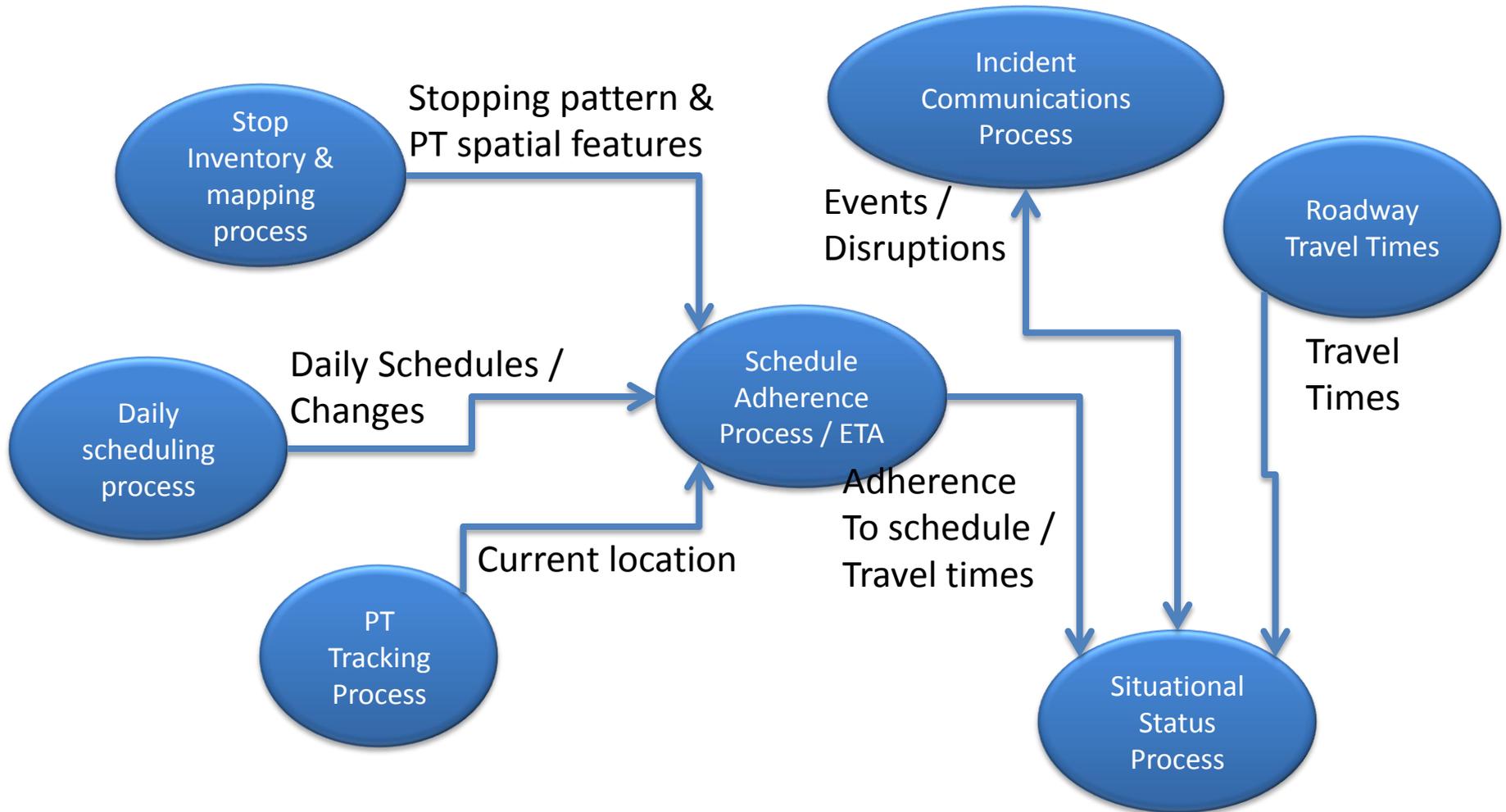
Generates regional data sets in a diverse, multi-modal public transport environment



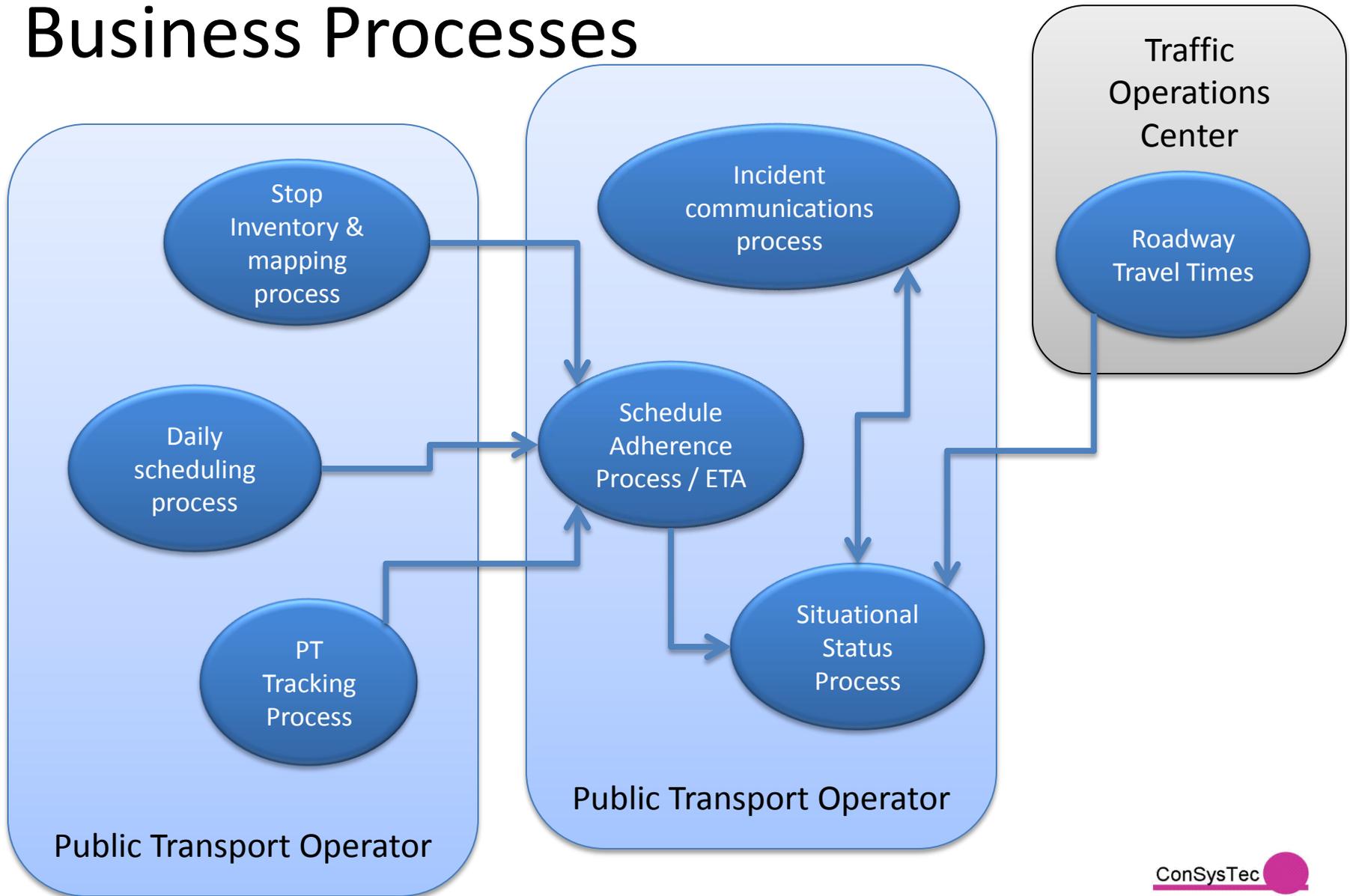
API = Application Programming Interface
GTFS = general [google] transit feed spec
RTSDP = Real-time Status Data Profile
SDP = Schedule Data Profile

OPEN DATA AND OTHER INFORMATION OUTLETS

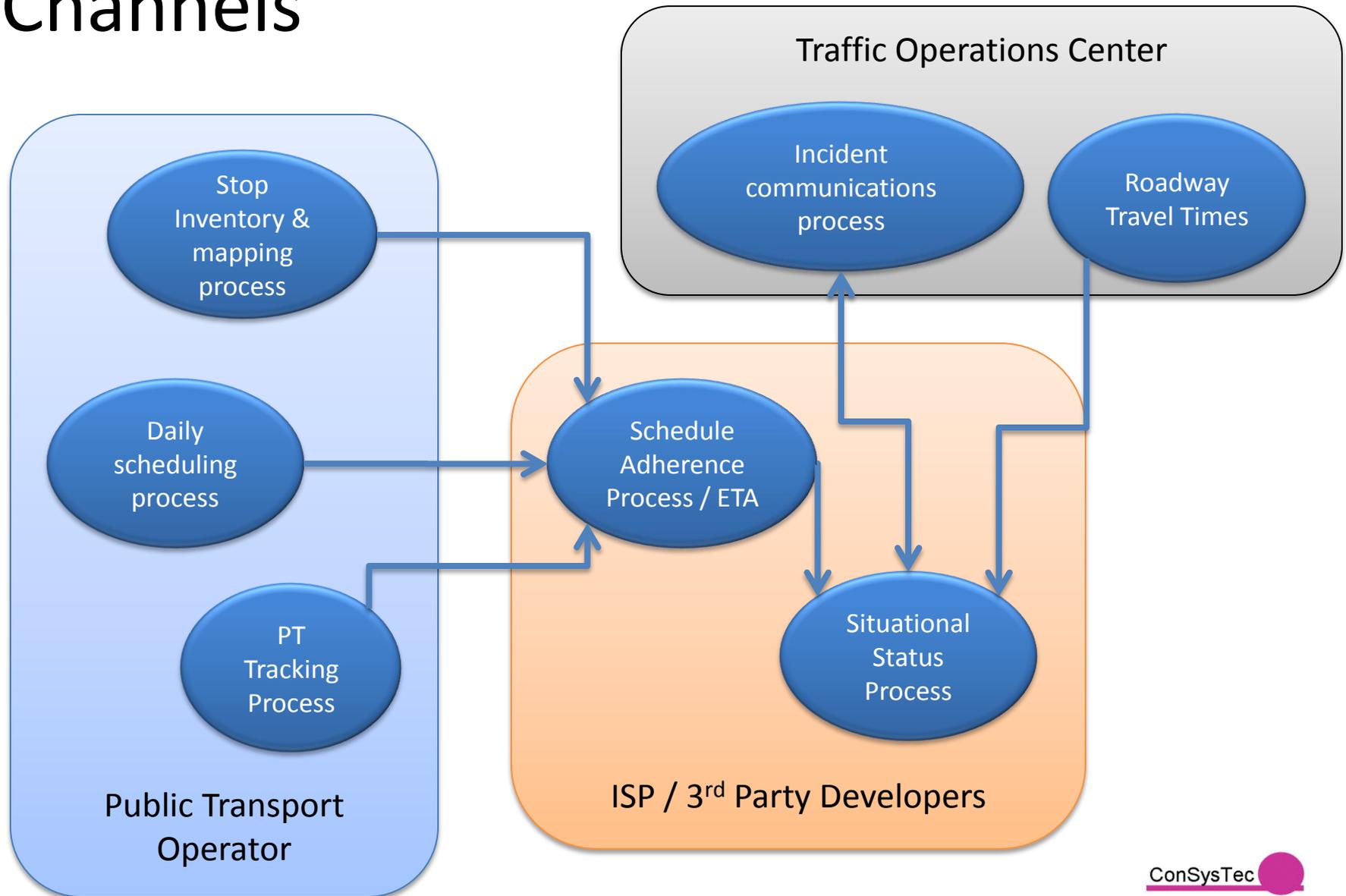
Process Model and Information Flows for Real-Time Situational Status



Traditional Public Agency-Centered Business Processes



Trend towards Non-Traditional Outlet Channels



Third Party Applications

- Provide trip planning / schedules
- Provide arrival information
- Provide tracking and schedule (“travel”) adherence



iBus-Portland

Searches for nearest stops, provides arrival information, and displays a map.

For iPhone, iPod Touch, iPad



iNap

Alerts you when nearing a destination.

For iPhone



iTransitBuddy

Provides schedule information for trains and plans trips from station to station.

For iPhone, iPod Touch, iPad, Android



jtrimet

Provides arrival information and a Java client library for TriMet web services.

For Android



New Junaio

Uses augmented reality to search for nearest stops, provide arrival information, display a map.

For iPhone 3GS/4, Android



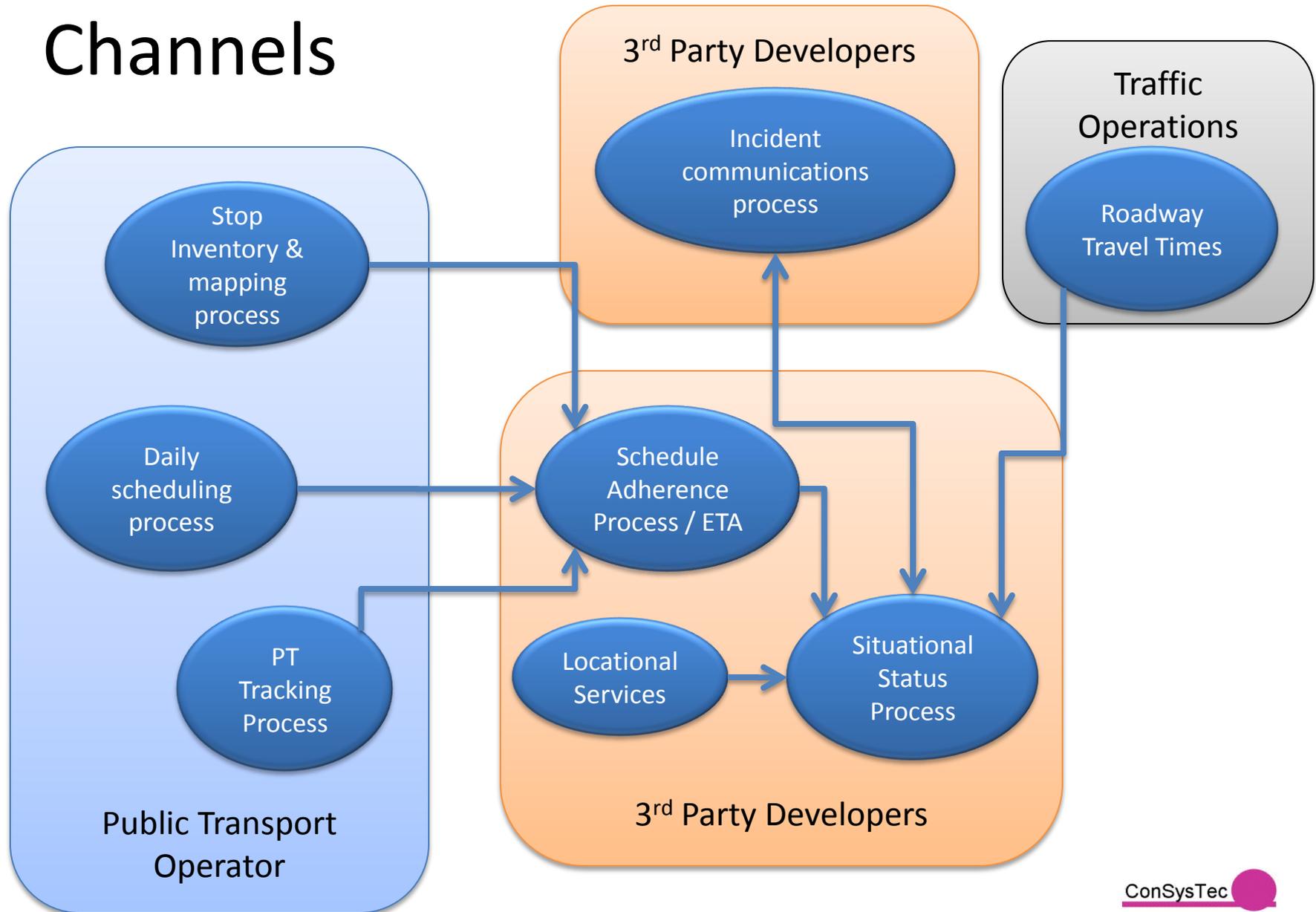
MyTriMet.com

Provides arrival information.

For mobile web browsers, web browsers, iPad

From TriMet App Center
<http://www.trimet.org/apps/index.htm>

Trend towards More Non-Traditional Channels



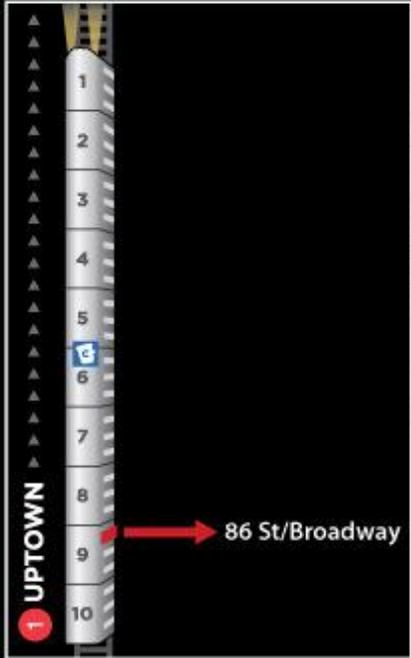
More Third Party “Apps”

Provide detailed information about subway cars / doors relative to station exits.

Developer collected detailed information about stations, exits, number of cars in each train, docking locations of cars relative to platform for the entire New York City Transit subway system.

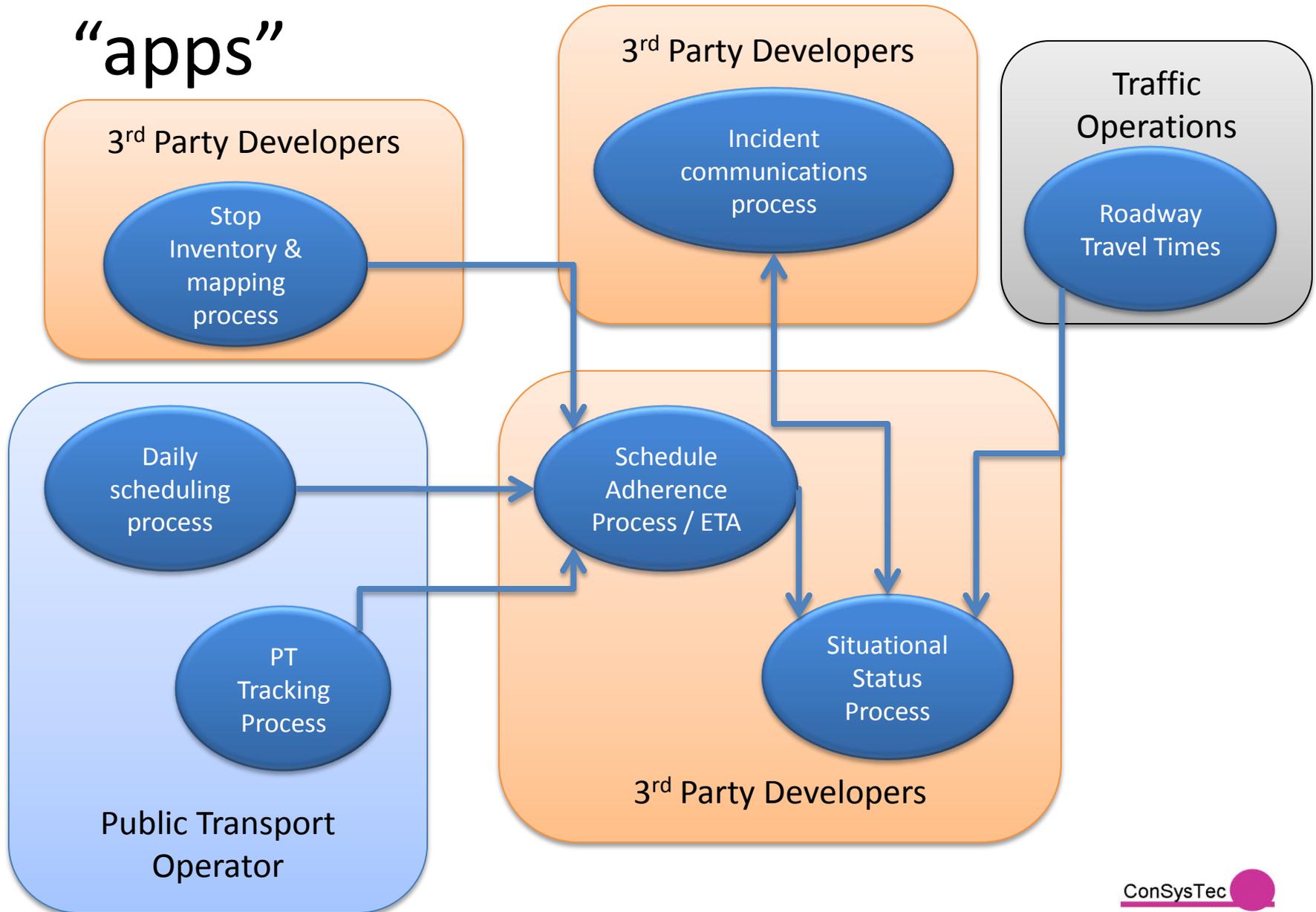
Exit Strategy NYC

Use the diagram of exits to estimate where to stand on the platform.



Example
Board this train at the front of the 9th car to arrive directly in front of the exit.
Doors will open on the right.

Trend towards Even More 3rd Party “apps”



Social Media -- even more apps

@NYCTSubwayScoop
@NYCTBusStop
@MTAInsider
@LIRRScoop
@MetroNorthTweet
@NYTransitMuseum

The image is a collage centered around the MTA and subway construction. On the left, there's a 'Times Square' sign, an 'MTA MetroCard' sign, and a yellow mascot figure. The background features a subway train and a construction site with workers on tracks. The central focus is a screenshot of the NYCTSubwayScoop Twitter profile page.

Twitter Profile: NYCTSubwayScoop

Name NYCT Subway Service
Location NY
Web <http://www.mta.info/>
Bio Official source for NYC Transit news & planned subway service changes. Monitored 9am to 10pm. Emergency call 911.

81 following 6,128 followers 539 listed

Tweets 5,674

Following

New platform lighting being installed at Whitlock Ave (6) as part of station rehabilitation project. #CSM <http://twitpic.com/20qtw7>
11 minutes ago via Twitpic

@pexton WOULD it help to take the Q, which is replacing the W and runs express in Manhattan?
27 minutes ago via TweetDeck in reply to pexton

An update on ongoing construction projects coming up in Construction Status Monday #CSM
28 minutes ago via TweetDeck

@max4f No doubt. Will the Q work instead, that remains express as you know
42 minutes ago via TweetDeck in reply to max4f

@KeWiCuteWSxApl No, the B is not discontinued
about 1 hour ago via TweetDeck in reply to KeWiCuteWSxApl

@max4f In essence the N replaces the W, which ran local in Manhattan.
about 1 hour ago via TweetDeck in reply to max4f

@max4f There was something on line @ www.mta.info not sure if it

RSS feed of NYCTSubwayScoop's tweets

ConSysTec

Social Media used for Customer Communications

Twitter Feeds used for incident communications

Facebook used for

- public relations,
- community outreach
- planned disruptions
- open data and developer's community
- And more

facebook

Email

Sign Up MTA New York City Transit is on Facebook

Sign up for Facebook to connect with MTA New York City Transit.

MTA New York City Transit Like

Wall Info Photos Reviews Links

MTA New York City Transit + Others MTA New York City Transit

MTA New York City Transit Until July 15, hop aboard the MetroCard to any of the 80 participating businesses offering Restaurants, cafés, salons, cultural institutions, clothing stores on our promotions page at: <http://www.mta.info/metrocard>

MTA/New York City Transit
www.mta.info
Enjoy Queens Art Express 2010, June 10, 11, 12* & 13*, a festival of communities of arts, culture, and commerce along the line. Call at 1-800-752-7529 or www.queenscouncilarts.org for details.

Like

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Search

WMATA Transparent Data Sets API Developers

Wall Info Discussions Events

Write something...

Attach:  

Invite People to Join

This group is to allow developers with a stake in the WMATA transparent data sets to communicate with each other in a casual, unofficial setting. We'll post official announcements here, but its our hope you'll make this space your own.

Bill Rigney Sorry for the JSON drama this AM but servers and JSON should be working correctly again - Bill

Monday at 10:44am · Comment · Like · Flag

Bill Rigney Changes that were made over the weekend indeed broken JSON. We are working to fix the problem back to normal this morning. Thanks for your patience

Monday at 9:10am · Comment · Like · Flag

And for Travel Time Estimates

- Coming to your city...



Download

Guided Tour

Live Map

My Dashboard

Community

Support

Blog

Users' Blog

[login](#)

Select Country:

What are waze drivers building?

Waze is a social mobile application providing free turn-by-turn navigation based on the live conditions of the road.

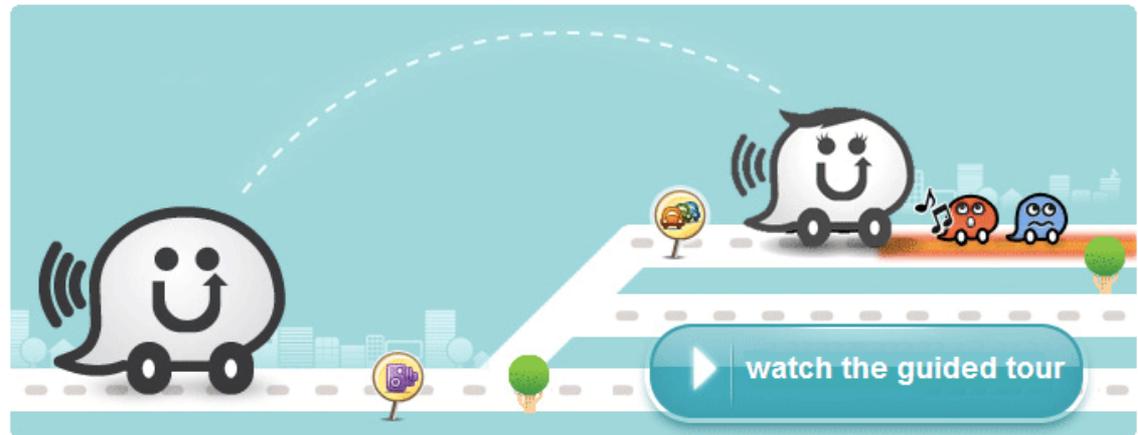
100% powered by users, the more you drive, the better it gets. Join the community of drivers in your area today!



Download

waze to your mobile

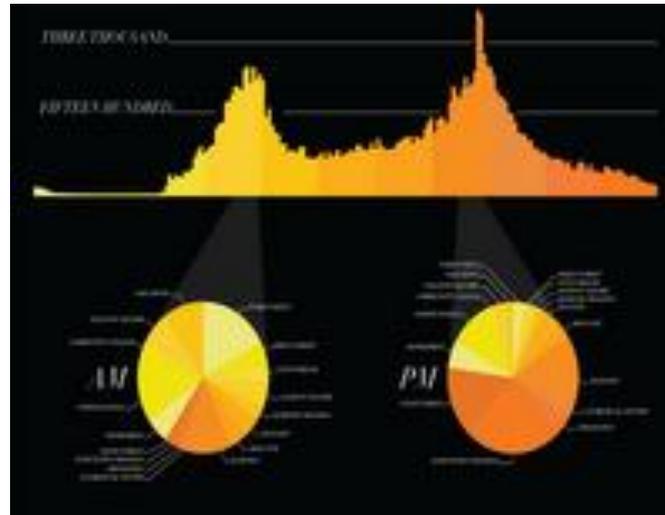
Real-time maps and traffic information based on the wisdom of the crowd



Yet one more...

Visualizations & Planning “app”

- [MBTA Visualization Challenge](#)
- The data released included all CharlieCard "taps" on average weekdays in the summer and fall.



Summary

- Better quality and more open public transport data will provide a great Return on Investment (ROI) for Public Transport organizations.
- Data Fusion depends on robust data standards across public transport and traffic modes.
- Open Data depends on data standards...but not all the time.

Challenge

- How do you feel about these non-traditional information outlets creating situational data that was traditionally the public's responsibility?

Contact Information

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