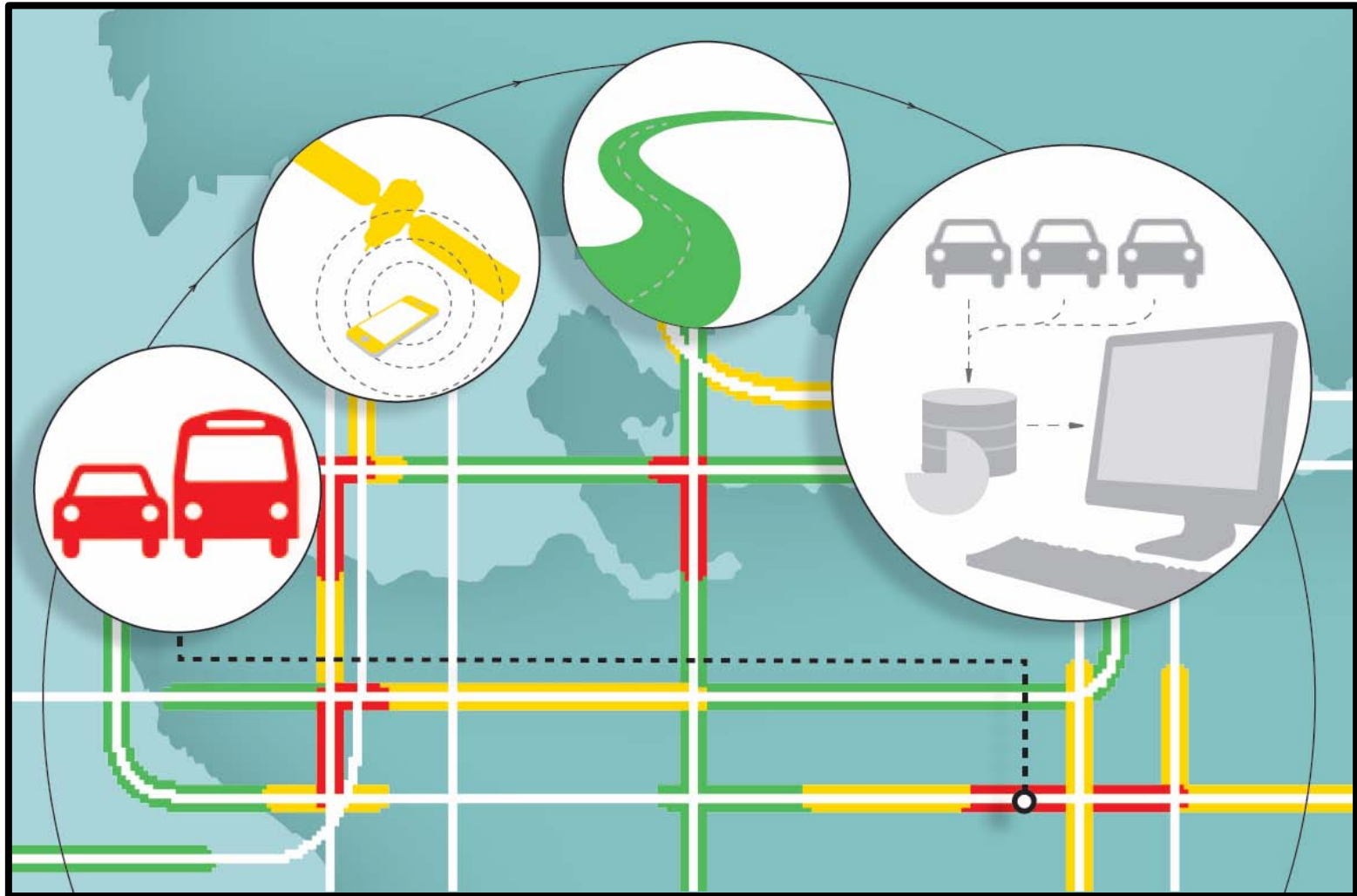


Regional Traffic Data System (RTDS) URISA Presentation – Feb.16, 2012



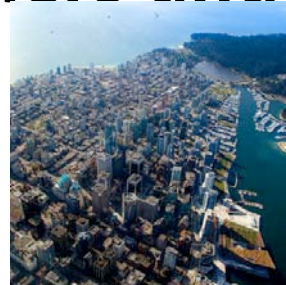
Keenan Kitasaka & Henry Ng, TransLink

What is “RTDS”?

- Data feeds ALL of our applications
- Identified need in “Regional Detectorization Strategy (June 2009)”

Innovative project to collect and disseminate speed information to support

customers and staff



RTDS Basics

Key Objective:

- Rapid deployment – congestion information
- Provide access to information in an open data environment
- Public sector, private sector



Regional Traffic Data System

Project Objectives

“What does RTDS do?”

1. Collect, disseminate and store real time traffic flow information
2. Display real time speed and travel time information on TravelSmart website **for users**
3. Provides web based application for reports and queries from historical traffic data **for staff**
4. Provides interfaces with **external agencies and private sector** “value added” service providers

Regional Traffic Data System Functional Requirements

Coverage: MRN, highway corridors, key arterials 24-7/365. S2S corridor (Whistler) and Hwy 1 (Chilliwack). Over 1400 kms.

Real time map – display speed ranges (green, amber, red, grey)

Archival database – access information through web application

Travel time information by clicking on road segment

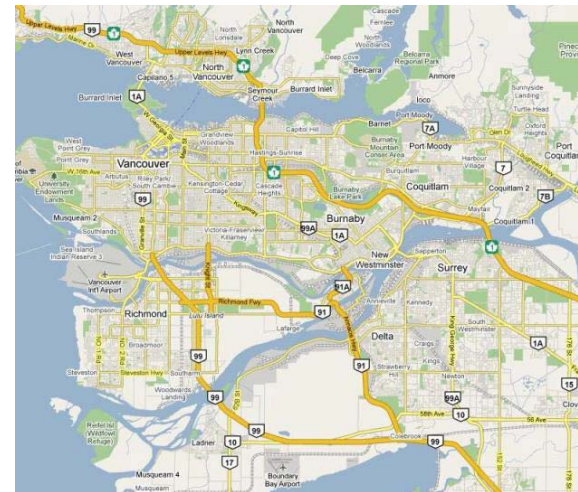
RTDS Expected Benefits

- Improve safety & economic efficiency
- Reduce travel time & congestion (better traveler information & trip planning)
- Improve work zone safety & support speed enforcement
- Collect traffic data on MRN 24x7 for targeted road efficiency improvements and infrastructure planning
- Support better transit scheduling and route planning
- Environmental benefits (GHG reduction)
- Support goods movement in region
- Create opportunities for partnership (public/private)

RTDS

How It Works

- Cell phone equipped vehicles as “probes”
- Collect positioning info based on signal signature database
- From Point A to B (known distance and time), speed can be calculated
- Only aggregated average speed for each link is received by TransLink



Regional Traffic Data System Project Scope

“What will the public see on the map?”

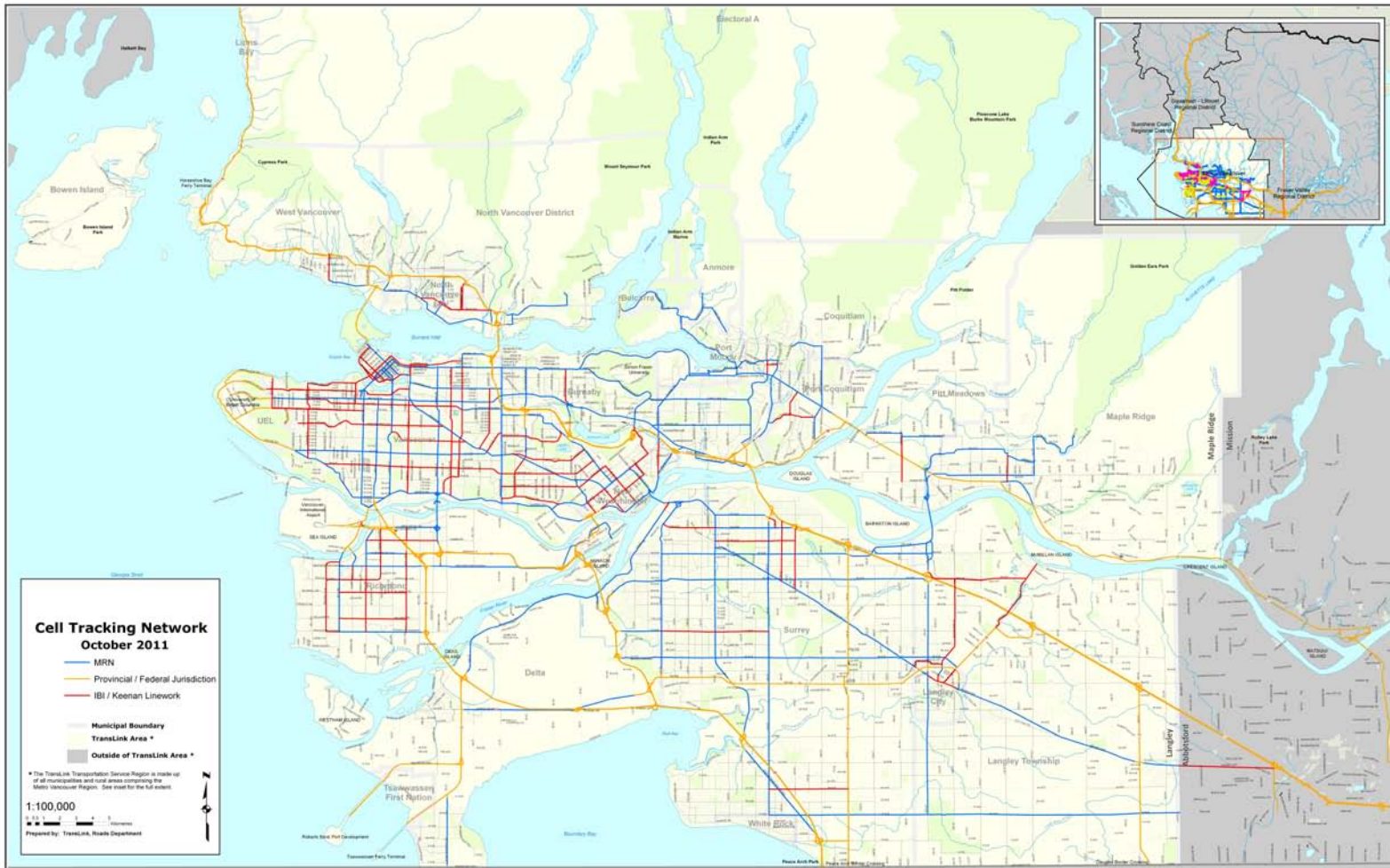
Map Display:

- ID #
- segment length
- direction of travel
- speed (km/hr)
- travel time (sec)
- sample size/reliability
- date & time stamp

Examples: Portland, OR



Data Network



Challenges and Issues

In an “open data” environment:

- Policy – federal, provincial, TransLink
- Privacy Act
- Budget – operating versus capital
- Contract – “IP” ownership
- Risk mitigation
- System security versus access
- Technical challenges (accuracy, filters, etc)

Regional Traffic Data System Project Status

- Contract awarded to IBI Group (Prime)
- Rogers – cell phone service provider
- Cellint – data services subcontractor
- Signal “signature” survey complete
- Web application under development

Regional Traffic Data System

Project Activities Planned

- Finalize system design document
- Software design & prototype
- Validation versus “ground truth”
- System acceptance
- “Go Live” is Q4 in 2012

Regional Traffic Data System

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