



NETWORKED
VEHICLE
ASSOCIATION



The First Responder Test-Bed Vision to Reality

Presentation to ITS
May 28, 2013

Barry Gander, Chair, NVA
EVP, CATA

613-340-0701

bgander@cata.ca



“Networked” Not Connected

- Surround the car occupant with the social network and global knowledge
 - Car interior as a friend delivering employee networks, all contacts, all news, entertainment, health, travel, and environmental control



NETWORKED
VEHICLE
ASSOCIATION

Who's Playing

Alcatel-Lucent 



at&t

comcast

Deutsche Telekom

verizon



QNX
QNX SOFTWARE SYSTEMS

SIERRA WIRELESS
HEART OF THE WIRELESS MACHINE

IBM



CISCO

SAP

NAVTEQ

WirelessCar

Airbiquity

INMOTION
TECHNOLOGY

Solace Systems

INTERMAP



BOSCH

Technik fürs Leben

IMS

DENSO

FICOSA
International

ADVANCED
AUTOMOTIVE
ANTENNAS



NISSAN



Das Auto.



CATAAlliance

Duke Energy



GOWLINGS
Barristers & Solicitors | Patent & Trade Mark Agents



Intelli Drive
Safer. Smarter. Greener.

Auto21
Improving Digital Business Operations

itWorld Canada

THE NEW NATIONAL DREAM:
Building an
Intelligent
Nation



LTE: Compelling for Responders

Narrow-band will remain platform of choice for mission-critical needs for some years to come... ***THEN LTE***



- Supported by all service providers, makers
- Vendors and device ecosystem support
- Simple antenna, multiple services
- Strong security
- Endorsed by major Public Safety associations
- Continuously evolving technology

NVA: Cloud and First Responders



- New technology is rapidly being deployed that transforms the communications opportunities for First Responders.
- A Test-Bed will allow FRs to find optimal solutions and showcase uses.





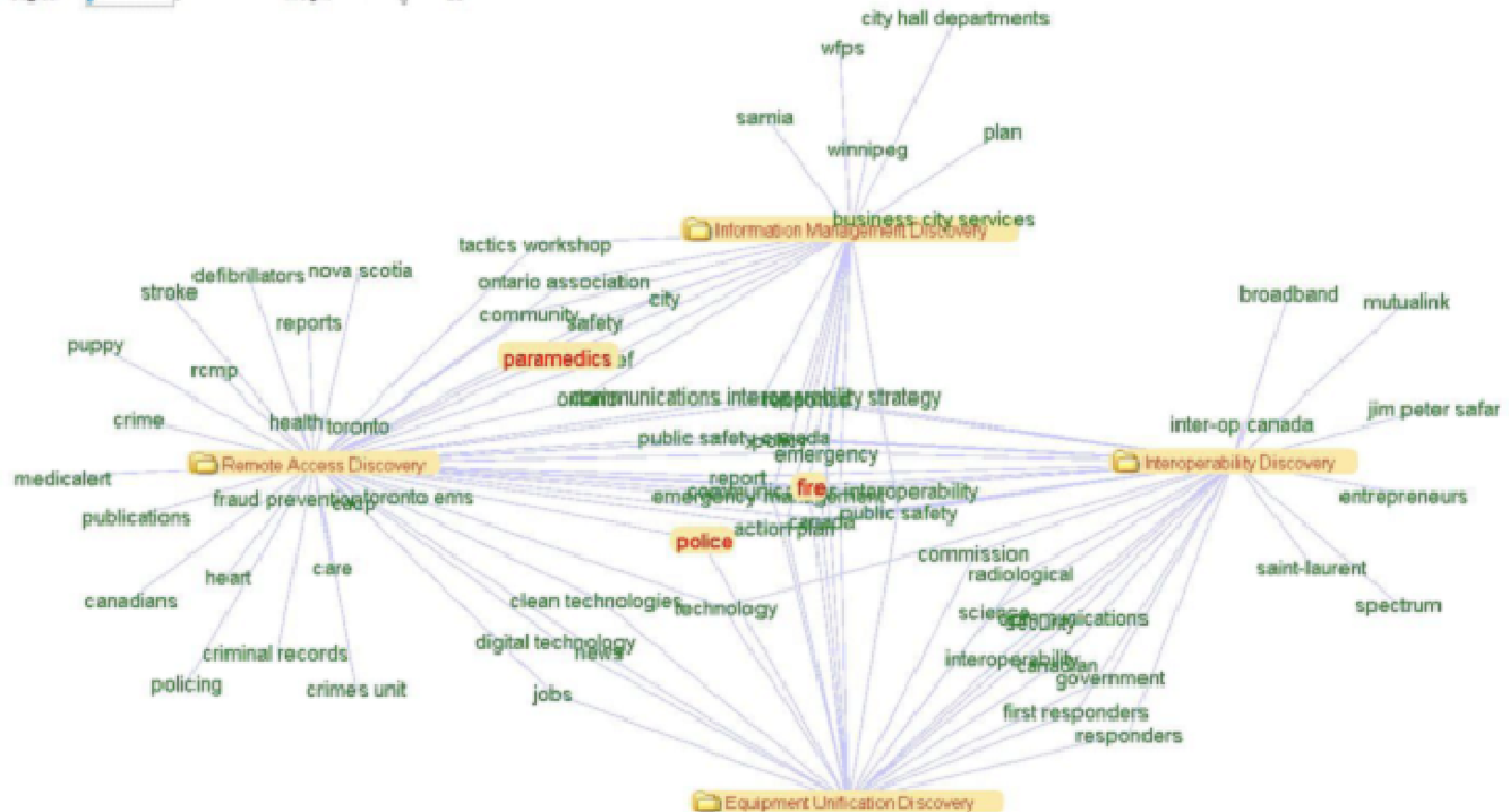
Priorities by Knowledge Map

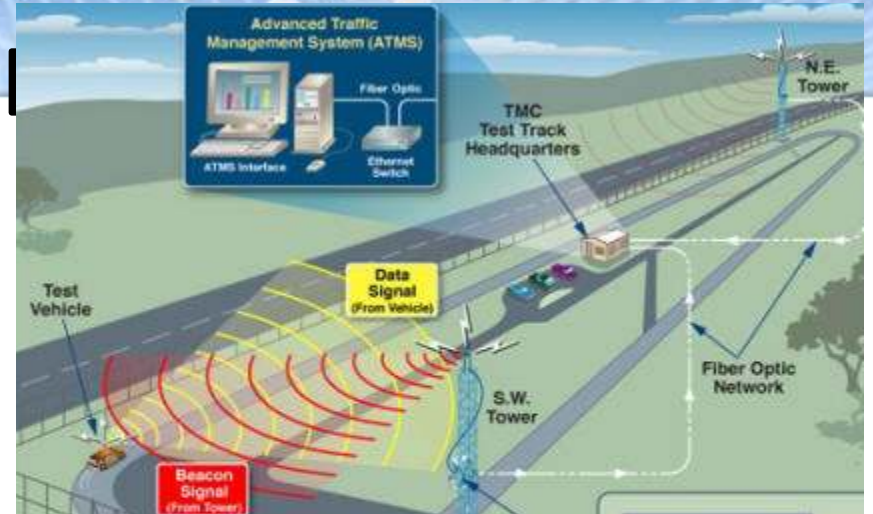
Graph: Comparison of Challenge Discoveries

targets: scatter minsort u-graph file

Degree:

Weight:

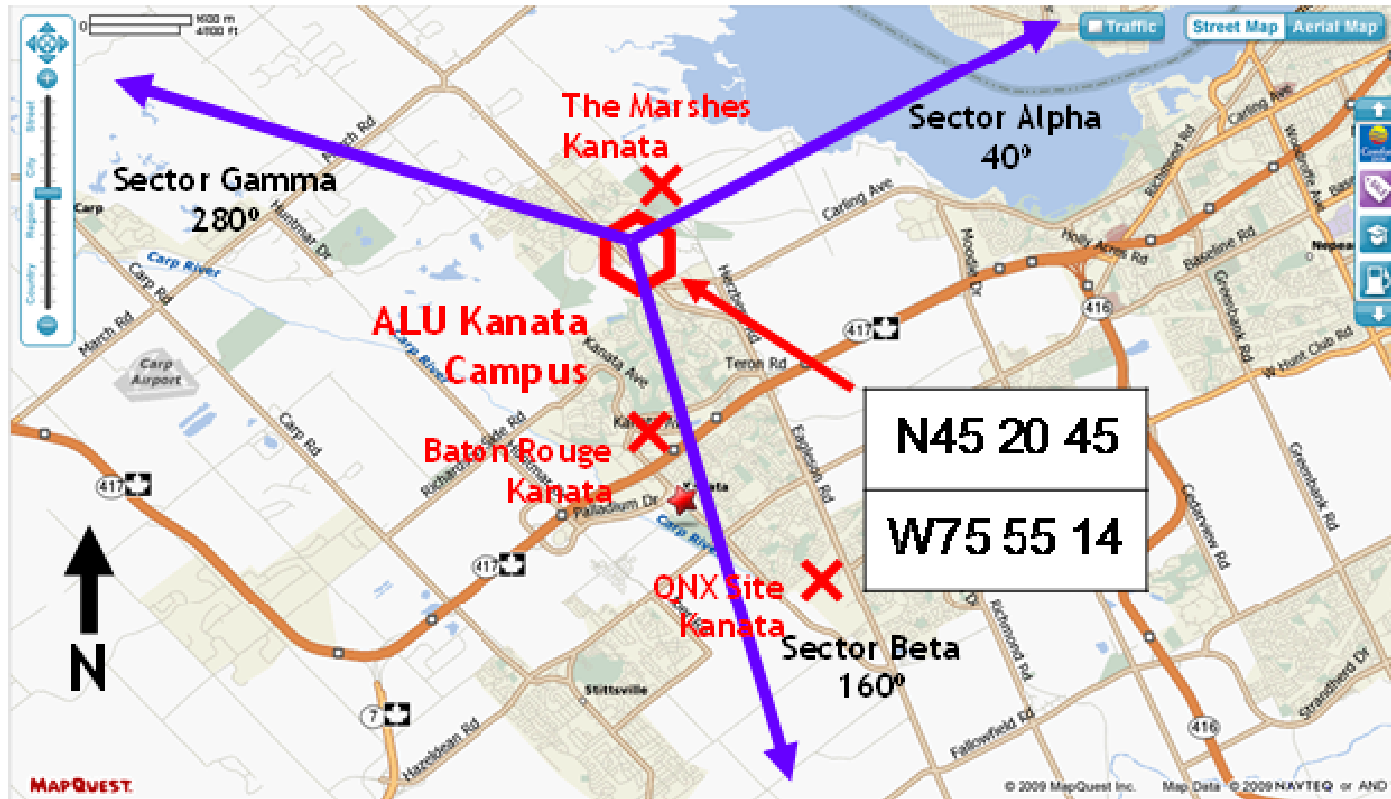




- Real road, real world
- Control and assembly area
- In-vehicle data hook-ups and back office



Kanata to U of O





Test-Bed Features

- Close to real field deployment environment: Spectrum, Speeds, Needs, Feeds
- Ability to deal with constant technology evolution, integration
- Diverse applications in various First Responder, verticals
- Adaptation to multiple standards, multiplicity of vendors
- Simultaneous service to different communities of interest
- IPR protection, secure information dissemination
- Privacy, Security, Legal administration
- Prelude to Nation wide remote connectivity

Test-Bed Steering Committee

- Hussein Mouftah, Canada Research Chair, University of Ottawa
- Steve Palmer, Exec Dir, Canadian Centre for Public Safety and First Responders
- Lance Valcourt, Exec Dir, Cdn Interop Interest Group
- Steve Erwin and Dennis Tessarolo, MTO
- Rock Lavigne & Benoit Charron, Inspectors, Ottawa & Gatineau Police
- Michael Sullivan, Division Chief, Ottawa Fire Service
- Michael Doucet, CTO, RCMP
- James Palmer, Lt. Col., National Defence
- Barry Gander, Chair, NVA
- Alcatel, Motorola, Harris, WiSense, nTerop...





Prep For World of 'Data Everywhere'

**The Seven Habits of
Highly Intelligent Communities 2013**

June 3-4

2013

"i-CANADA is the centre of the universe for Smart Communities"
- IBM Executive

12:00 p.m.	Networking Lunch	Supported by Optellan	
1:15 p.m.	<p>"On Stage": Public Safety and Intelligent Networks with Alcatel-Lucent, Harris, and with Police, Fire, and Ambulance applications</p> <hr/> <p>First Responder Test-Bed, i-CANADA and University of Ottawa</p> <p>Hussein Mouftah, Canada Research Chair, University of Ottawa</p> <p>Ken Budka, Alcatel-Lucent CTO of Strategic Industries, Vice Chair FCC First Responder Board for Broadband Interop, former Sr. Director of Advanced Mission Critical Networks</p> <p>San Sevieria Marshall, Business Development and Finance Strategy, Harris Corporation</p>		 <p>Hussein Mouftah</p>  <p>Ken Budka</p>  <p>San Sevieria Marshall</p>





Prep:

Consumers Desire More Automated Automobiles

Consumers Trust Driverless Cars



57%

of consumers, globally, trust driverless cars—even more so in emerging markets

Brazil

95%

Canada

52%

India

86%

France

45%

China

70%

UK

45%

USA

60%

Germany

37%

Russia

57%

Japan

28%



Source: Cisco Customer Experience Report for Automobile Industry, May 2013 survey of 1,511 consumers in 10 countries.

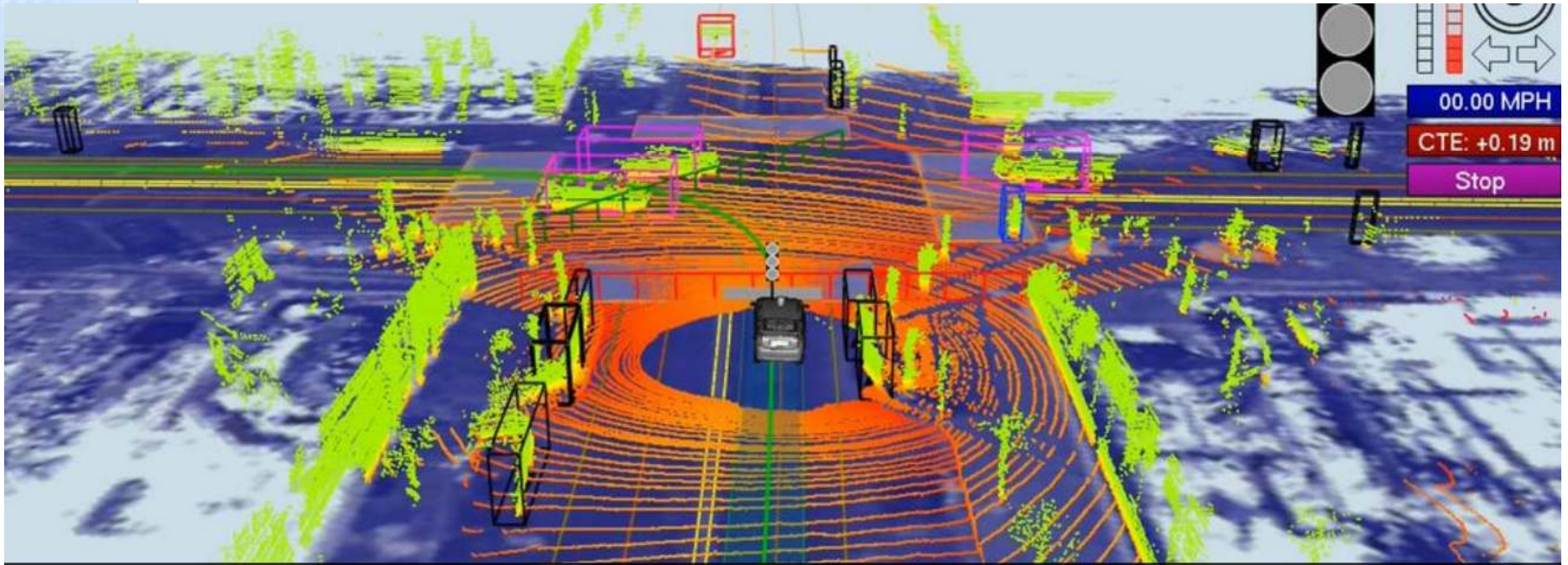
“Survey shows consumers comfort with technology and need for immediate information whether they are researching, buying, driving or servicing their vehicle”

-- Peter Granger, senior industry marketing manager, Cisco Products Solutions



NETWORKED
VEHICLE
ASSOCIATION

Gain Experience With High Data Flow



The mobile Cloud is Key to *All* Cars...

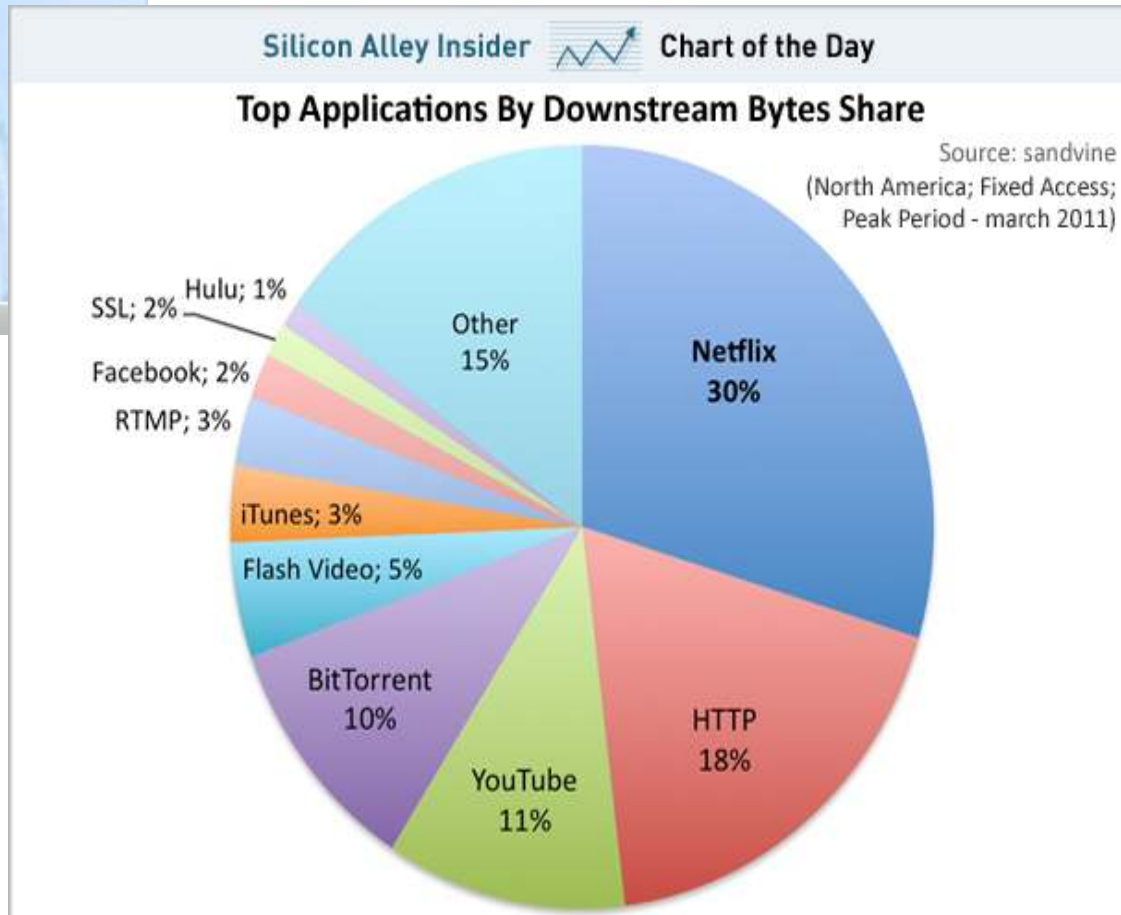


Source: Maximizing Mobile, ICT, World Bank, July 2012

Newspapers - 480 m daily
PCs - 1.1 b
Phones - 1.2 b land-line
Internet users - 1.4 b

Transforms car value equation:
80% of innovation in car today from ICT
Vehicle 3rd-fastest-growing connected device
(smartphones, tablets)

What's in the Mobile Cloud?: Video



- Mobile Web browsing and especially mobile video will grow.
- By 2015, mobile video will account for 68.5 percent of all mobile data usage in the U.S. (or 224 petabytes/month).
- Coda estimates that 95 million mobile handset subscribers in the U.S. will be watching video on their phones in five years out of a total of 158 million mobile internet users.



NETWORKED
VEHICLE
ASSOCIATION

Feedback

Barry Gander

Chair, NVA

bgander@cata.ca

613-340-0701