



Prepared For:
Bellevue City Council

August 7, 2017

City of Bellevue ITS Update

Prepared By:

Chris Long, Traffic Engineering Manager
clong@bellevuewa.gov, 425-452-6013

Presentation Outline

- 1. ITS Implementation Plan Goals and Visions**
- 2. ITS Master Plan project update**
- 3. 90-day Report on Transportation Technology Partnerships**

ITS Implementation Strategy

Draft Vision

Use innovation and partnerships to deploy emerging technologies that enhance the safety, sustainability, efficiency, and accessibility of Bellevue's transportation system.



ITS Strategy - Goals

Safety

1. Improve safety for all modes of travel in support of Bellevue's Vision Zero initiative.

Sustainability

2. Enhance sustainability by reducing vehicle emissions.

Efficiency

3. Improve the efficiency of the roadway network to support regional mobility.
4. Expand and enhance the City's current ITS functions.
5. Provide accurate and timely transportation information for more efficient travel choices.

ITS Strategy - Goals

Accessibility

6. Create more mobility choices for commuters, residents and visitors.

Economic Growth

7. Make Bellevue a nationally recognized leader in advanced transportation technologies.
8. Leverage Bellevue's ITS network and transportation technology partnerships to support the growth of the technology industry in Bellevue and overall economic opportunities.
9. Pursue private and public sector funding partnerships in advancing Bellevue's ITS Implementation Strategy.

ITS Master Plan

Status Update

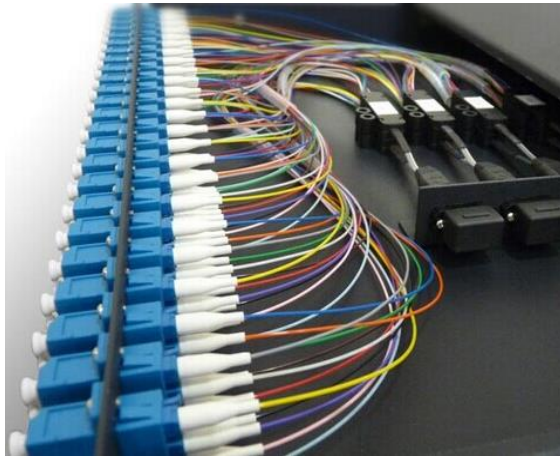
1. **ITS inventory:** *Complete*
2. **Literature Review:** *Complete, with regular updates.*
3. **Needs Assessment:** *In Progress*
4. **Traveler Information Outreach:** *In progress*
5. **Communication Plan:** *Near Completion*
6. **Deployment Plan:** *In progress*
7. **Final Report:** *In progress*

ITS Needs Assessment - Themes



Enhance communication network resiliency

Network
Security



Network
Equipment
Upgrades



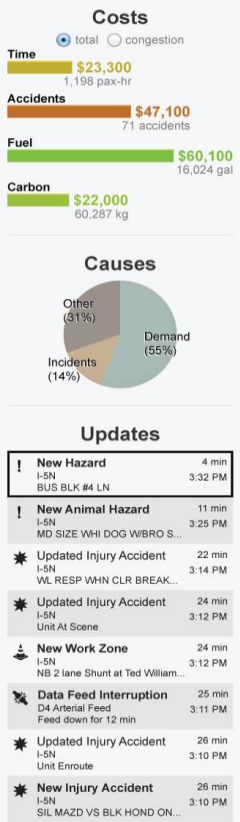
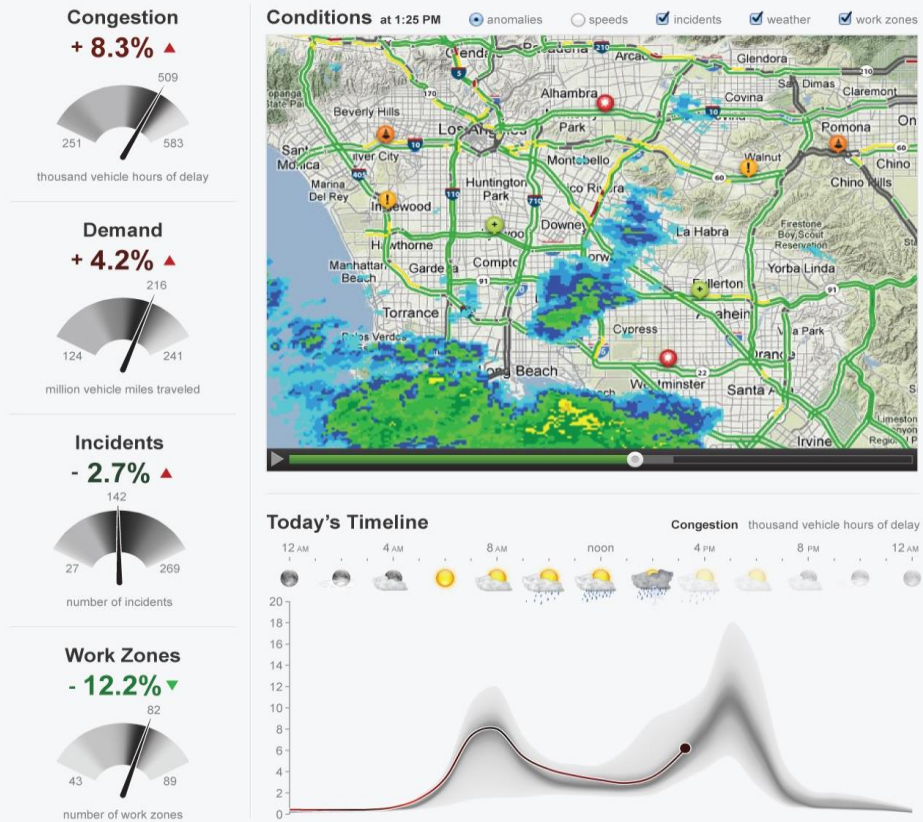
Fiber Optic
Upgrades



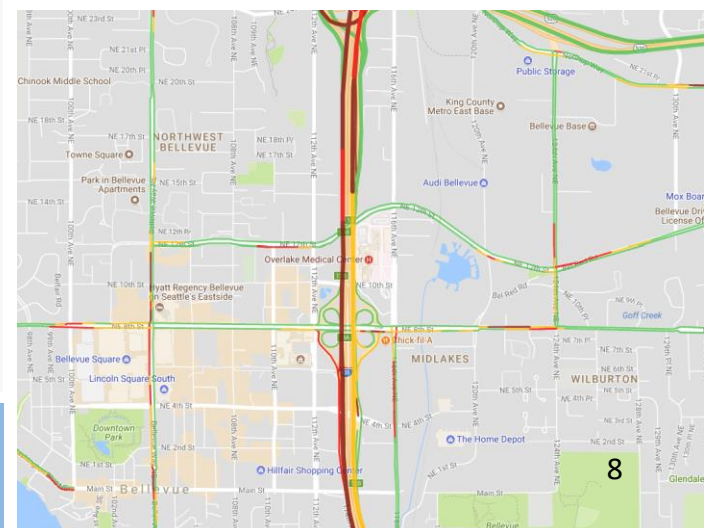
ITS Needs Assessment - Themes



Increase availability of real-time transportation data



Probe-Based
Data Sources



Performance Monitoring

ITS Needs Assessment - Themes



Expand social media use for traveler information purposes

Washington State DOT Retweeted

WSDOT Traffic @wsdot_traffic · 21h

Replying to @wsdot_traffic @GoodToGoWSDOT

All lanes of SB I-405 at SR 527 are BLOCKED due to serious crash. Traffic getting by on left shoulder. This will be a while. TAKE ALT ROUTE!



2 15 7

Washington State DOT @wsdot · 21h

I-5 will be reduced to 2 lanes northbound as they repair Pacific Ave bridge in Olympia. Expect delays.



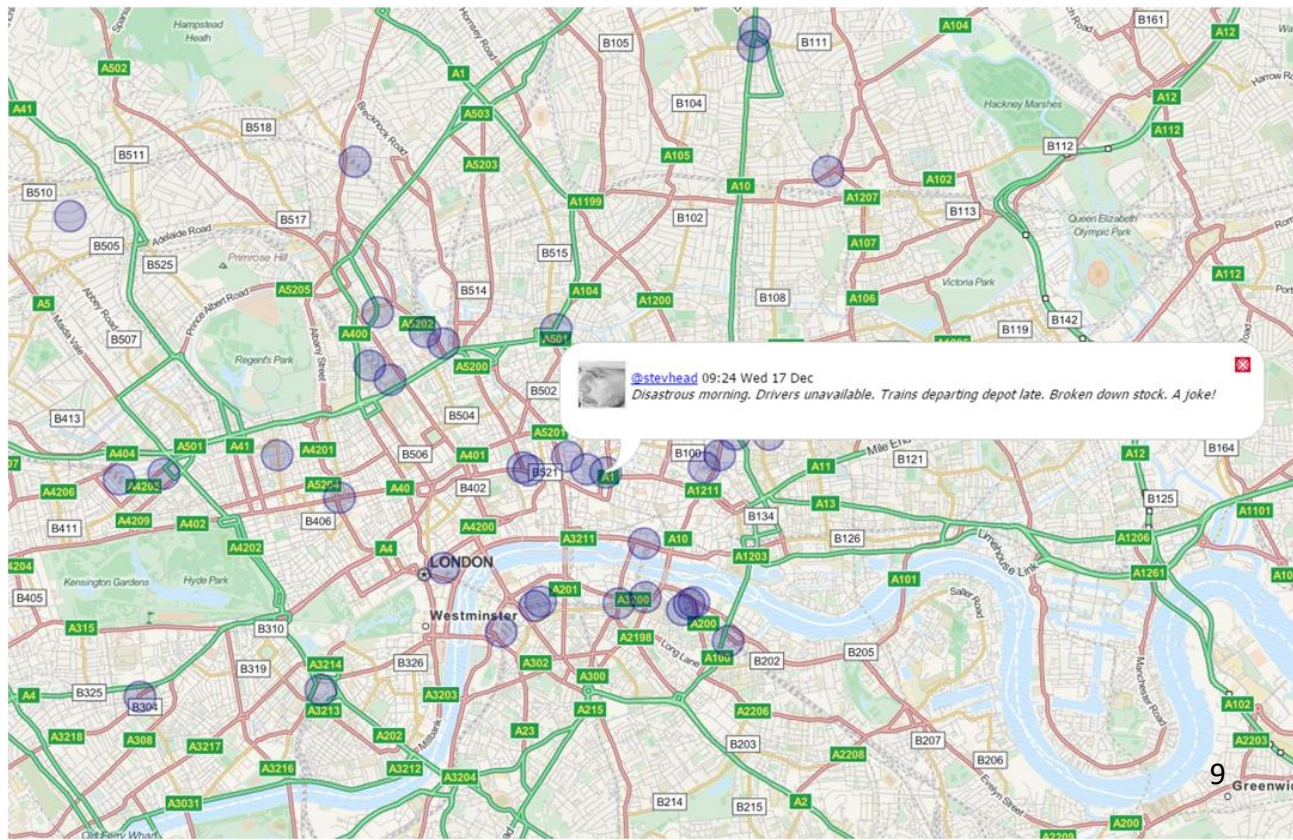
WSDOT Tacoma Traffic @wsdot_tacoma

Olympia: Expect big northbound I-5 delays over last two weekends of July.
bit.ly/2tn831m

8 4

Twitter Feeds

Real-time Traveler Reports



ITS Needs Assessment - Themes

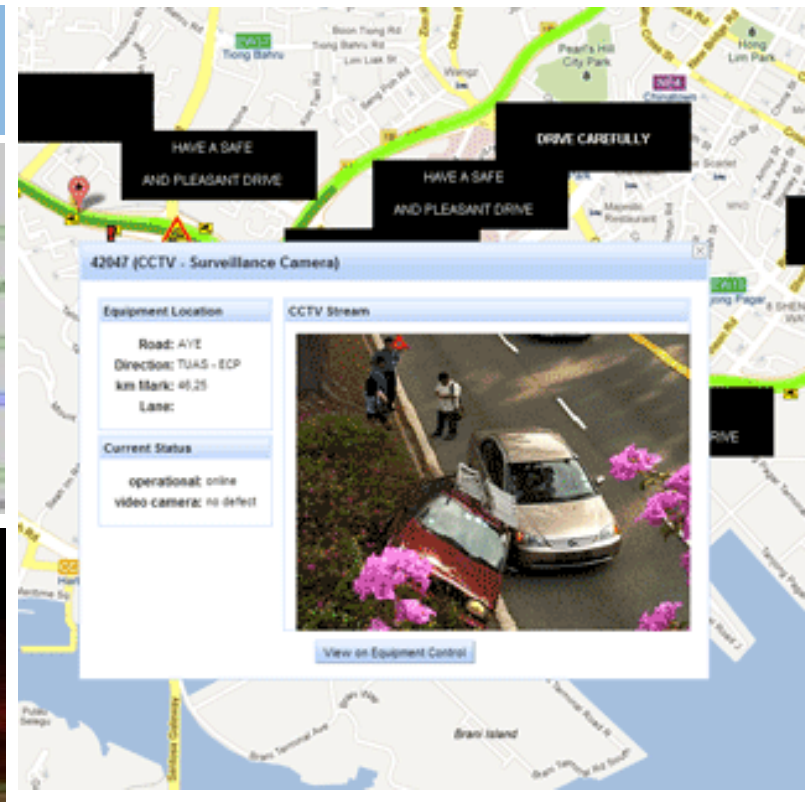


Provide inter-compatibility between technologies

Real-Time Snow Plow Information



CAD-AVL Integration



Incident Management System

ITS Needs Assessment - Themes



Provide ITS Benefits for All Modes of Travel



Multimodal
Traveler
Application

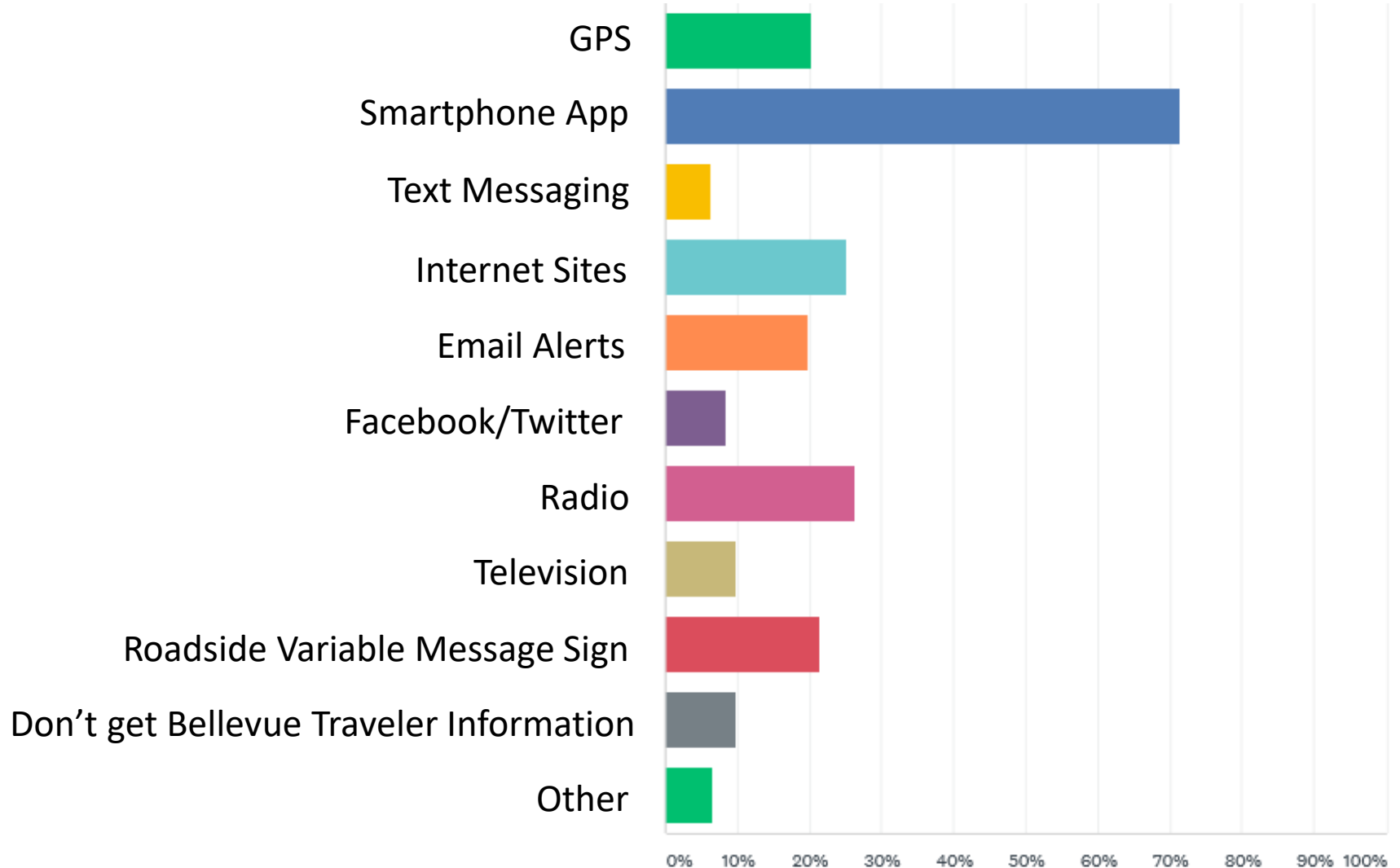
Transit Signal
Priority
Expansion



Bicycle
Detection

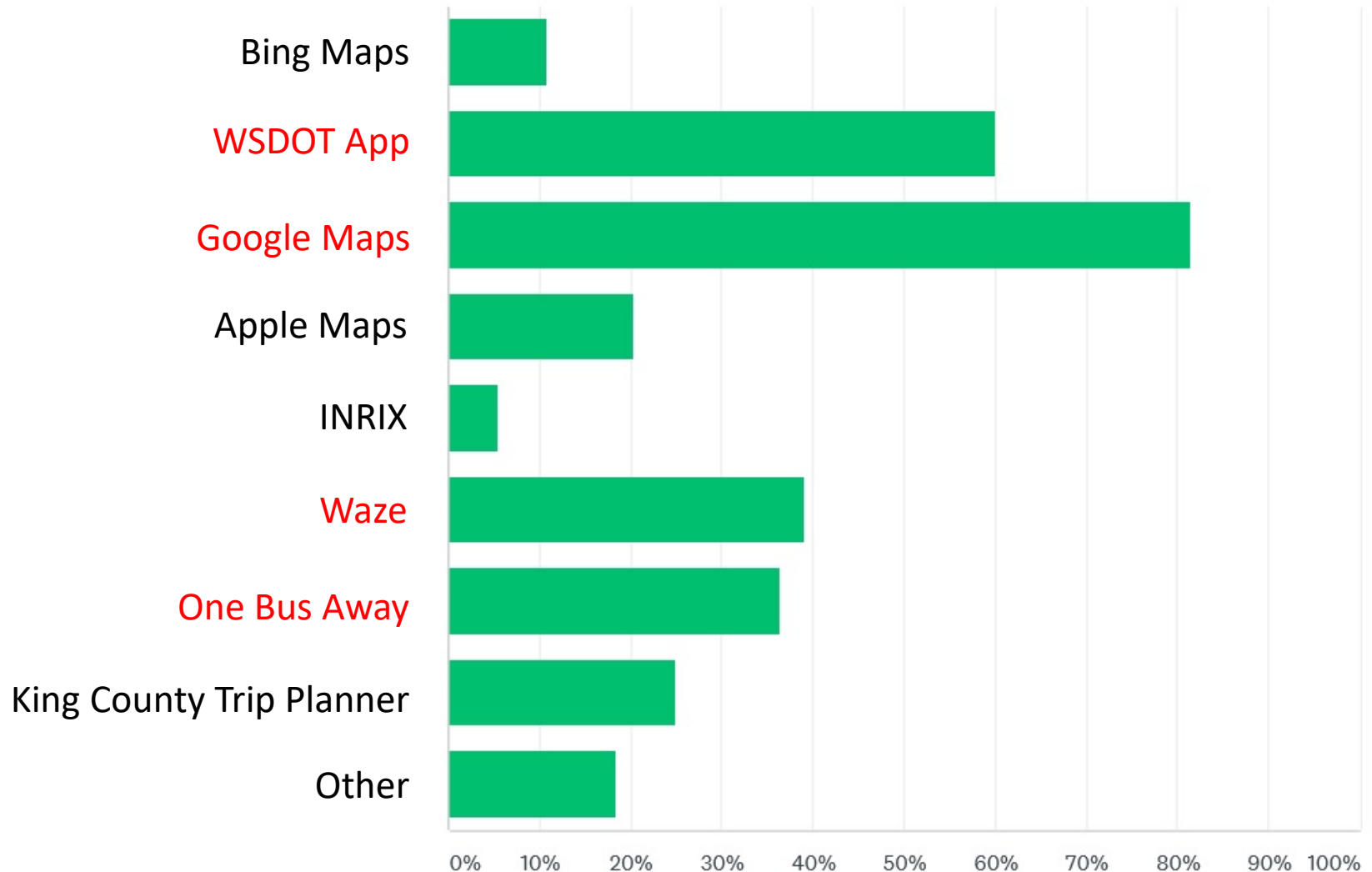
Traveler Information Outreach

Preferred Source of Traveler Information for Bellevue Travelers



Traveler Information Outreach

Apps Used by Bellevue Travelers





Autonomous Vehicle Technology

AUTONOMOUS SHUTTLE

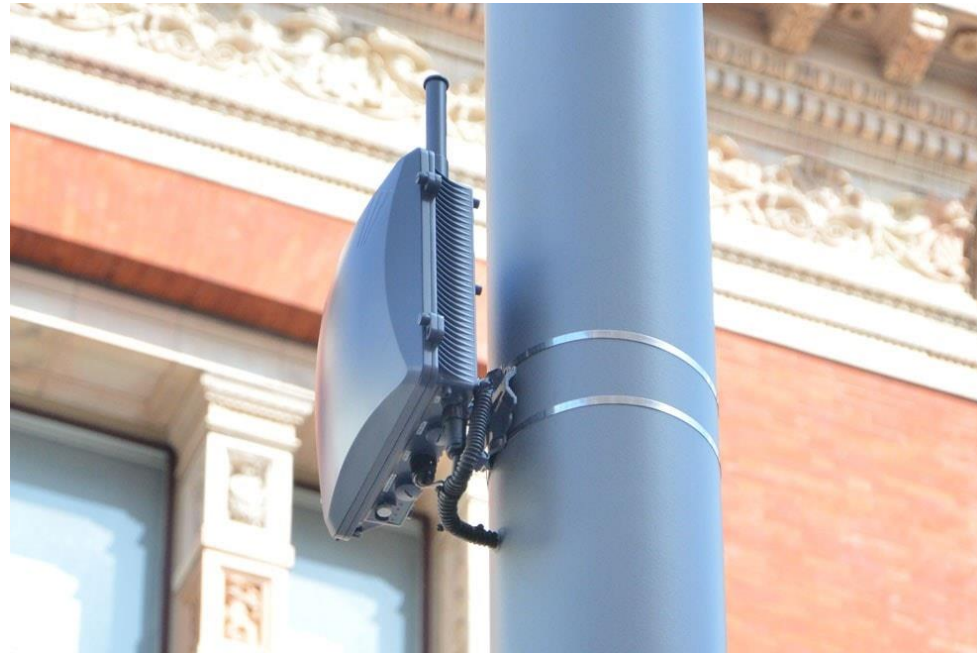


WASHINGTON EXECUTIVE ORDER



Connected Vehicle Technology

VEHICLE TO INFRASTRUCTURE TECHNOLOGY



V2I COMMUNICATIONS



Electric Vehicle Technology

EV CHARGING INFRASTRUCTURE



ELECTRIC VEHICLE FLEET



Shared Vehicle Services

MOBILITY HUBS



FLEXIBLE ELECTRIC VANPOOLS



CAR SHARE PROGRAMS



Funding Opportunities



INFRA: Infrastructure for Rebuilding America



Bloomberg Philanthropies 2017 Mayors Challenge



USDOT: Advanced Transportation and Congestion Management Technologies Deployment Initiative



Volkswagen Clean Air Act Civil Settlement

ITS Implementation Strategy

Next Steps

TRANSPORTATION TECHNOLOGY PARTNERSHIPS



FURTHER EVALUATION
ON INITIATIVES
IDENTIFIED



EVALUATE FUNDING
OPPORTUNITIES

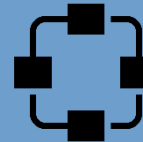
ITS MASTER PLAN UPDATE



CONVENE A FOCUS
GROUP MEETING



DEVELOP PROJECT
DEPLOYMENT PLAN



DEPLOY
COMMUNICATION
UPGRADES



Questions?

Chris Long, Traffic Engineering Manager
clong@bellevuewa.gov, 425-452-6013

Steve Marshall, TTP Manager
smarshall@bellevuewa.gov, 425-452-4221

Daniel Lai, Senior ITS Engineer
dlai@bellevuewa.gov, 425-452-6178



Transportation Partnerships Outreach

- Bellevue Rotary Club presentation, May 2nd
- Bellevue Downtown Association presentation, May 23rd
- ACES NW network presentation, May 24th
- Eastside Leadership conference, June 2nd
- Governor Inslee's Executive Order signing and meetings, June 7th
- Bellevue Chamber of Commerce Transportation Committee presentation, July 11th
- Pacific Northwest Economic Region (PNWER) financing panel presentation, July 26th
- Bellevue Transportation Commission Retreat presentation, July 27th