WELCOME AND INTRODUCTIONS
What we Need to Accomplish Today

- Review study status
- Discuss key policy topics
  - In- and out-of-state travel
  - Urban / rural travel
  - Privacy
- Review project direction through June 2013
PUBLIC COMMENT
LEGISLATIVE UPDATE
OREGON ROAD USAGE CHARGE
PILOT

UPDATE OF WASHINGTON
STATE PARTICIPATION
Summary of Washington Participants

- 22 total participants
- 2 hybrid vehicles, 20 gasoline vehicles

Plans selected:
- All accounts managed by Sanef, a tolling operations company
- 16 “advanced” (location-based) mileage reporting devices
- 6 “basic” (non-location-based) mileage reporting devices
Survey Methodology and Participation

- Web-based surveys distributed to participants before, during, and after the conduct of the pilot test
- Some questions repeated across all three surveys; others unique to each survey
- Combination of multiple choice and open response questions
- Response rate (out of 22 participants)
  - Pre-pilot: 12
  - Midpoint: 15
  - Post-pilot: 15
Pre-pilot Responses

- Participants generally supportive for various reasons, e.g.:
  - Source of revenues for transportation systems
  - Fairness of charging for direct use of roads
- Concerns centered on administration
- Most interested in these features:
  - Refunds for gas tax and off road use
  - Choice in service plan
  - Account security
- Largely comfortable with advanced technologies
Importance of Road Usage Charge Choices

*off road includes out-of-state

Degree of importance
Summary Statistics for Washington Participants

\textit{December and January}

<table>
<thead>
<tr>
<th>December 2012 and January 2013</th>
<th>Miles</th>
<th>Road Usage Charge</th>
<th>Fuel Tax Credits</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undifferentiated</td>
<td>6,651</td>
<td>$124.30</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Washington</td>
<td>26,144</td>
<td>$488.82</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Out-of-State/Off-road</td>
<td>1,882</td>
<td>$0.00</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>34,677</td>
<td>$613.12</td>
<td>$555.84</td>
<td>$57.28</td>
</tr>
</tbody>
</table>

- Similar values in each month except for out-of-state/off-road mileage which was much higher in December.
- Net revenue positive due to higher than average fuel efficiency of participating vehicles.
- Fuel tax credits computed mostly from actual fuel consumption as measured by the mileage reporting device.
# Average Time Devoted to Pilot

*Minutes Per Respondent*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Average time in minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign up for RUCPP</td>
<td>6.1</td>
</tr>
<tr>
<td>Select account</td>
<td>3.1</td>
</tr>
<tr>
<td>Set up account</td>
<td>4.9</td>
</tr>
<tr>
<td>Install device</td>
<td>7.5</td>
</tr>
<tr>
<td>Troubleshooting device</td>
<td>1.2</td>
</tr>
<tr>
<td>Reading statement</td>
<td>3.9</td>
</tr>
<tr>
<td>Troubleshooting account</td>
<td>0.1</td>
</tr>
<tr>
<td>Other (including surveys)</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30.5</strong></td>
</tr>
</tbody>
</table>
Pilot Issues

- Mileage reporting devices generally regarded as easy to install and use. However, one instance each of these:
  - Difficulty with installation
  - Device detached (unknown to driver)
  - Device was not compatible with a vehicle

- Some thought invoices were not “user friendly”

- Difficult for participants to verify accuracy of statements, privacy, and account security
Post-pilot Attitudes

- Multi-state issues
- Some confusion regarding fuel tax credits
  - Washington participants did not actually pay road usage charges
- Pilot technology and operations generally deemed “easy” and “simple”
- All respondents reported attitude toward road usage charging either “unchanged” or “improved” at both the midpoint and final surveys
## Technology Options
### Mileage Plans Offered

<table>
<thead>
<tr>
<th>RUCPP Plan</th>
<th>Miles Reported</th>
<th>Invoice</th>
<th>Payment Method</th>
<th>Online account management</th>
<th>Uses GPS?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODOT Basic Plan</td>
<td>All</td>
<td>Mailed Monthly</td>
<td>Check</td>
<td>No</td>
<td>No, does not report where miles are driven</td>
</tr>
<tr>
<td>ODOT Flat Rate Plan</td>
<td>N/A</td>
<td>Once, at start</td>
<td>Check</td>
<td>No</td>
<td>No device</td>
</tr>
<tr>
<td>Sanef Basic Plan</td>
<td>All</td>
<td>Emailed Monthly</td>
<td>Credit/debit card</td>
<td>Yes</td>
<td>No, does not report where miles are driven</td>
</tr>
<tr>
<td>Sanef Advanced Plan</td>
<td>Public roads in Oregon only</td>
<td>Emailed Monthly</td>
<td>Credit/debit card</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sanef Smartphone Plan</td>
<td>With application running, only roads in Oregon; without application running, all roads</td>
<td>Emailed Monthly</td>
<td>Credit/debit card</td>
<td>Yes</td>
<td>Yes, when the application is running</td>
</tr>
</tbody>
</table>
Mileage Reporting Devices (MRDs) in the Pilot

Basic
(No Location Technology)
Provided by IMS

Advanced
(GPS included)
Provided by IMS

Smartphone
Provided by Raytheon

Note: Also known as on board units or OBUs
Smartphone Mileage Reporting Device

**How it works**

- **Plugs into vehicle data port**
  - Connects to users smartphone via Bluetooth when user has phone in vehicle

- **When connected, phone measures distance**
  - Uses vehicle and GPS signals

- **Phone transmits mileage to the account management system**

- **When the phone is not in the vehicle, the device records mileage traveled, and stores it until phone is in vehicle again and it can be transmitted**
Pilot Successfully Demonstrated Functionality of All Operational Concepts

- Concept proven
- No malfunctioning OBUs
- No missing miles
- No missing invoices

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactions</td>
<td>1,402</td>
<td>2,787</td>
<td>2,867</td>
<td>1,180</td>
<td>8,236</td>
</tr>
<tr>
<td>Total Miles</td>
<td>32,908.9</td>
<td>71,059.0</td>
<td>79,663.8</td>
<td>49,918.9</td>
<td>233,550.6</td>
</tr>
<tr>
<td>Oregon Miles</td>
<td>31,478.4</td>
<td>35,346.4</td>
<td>35,671.0</td>
<td>25,842.4</td>
<td>128,538.2</td>
</tr>
<tr>
<td>Nevada Miles</td>
<td>1,430.5</td>
<td>18,663.2</td>
<td>26,366.4</td>
<td>24,076.5</td>
<td>70,536.6</td>
</tr>
<tr>
<td>Washington Miles</td>
<td>0</td>
<td>17,049.4</td>
<td>17,626.4</td>
<td>0</td>
<td>34,675.8</td>
</tr>
<tr>
<td>OR Gross Tax</td>
<td>$479.71</td>
<td>$542.51</td>
<td>$1176.64</td>
<td>$642.77</td>
<td>$2,841.63</td>
</tr>
<tr>
<td>OR Motor Tax Credit</td>
<td>-371.16</td>
<td>-316.65</td>
<td>985.79</td>
<td>-492.24</td>
<td>-2,165.84</td>
</tr>
<tr>
<td>OR Net Tax</td>
<td>$108.55</td>
<td>$225.86</td>
<td>$190.85</td>
<td>$150.53</td>
<td>$675.79</td>
</tr>
<tr>
<td>Participants</td>
<td>35</td>
<td>72</td>
<td>84</td>
<td>35</td>
<td>n/a</td>
</tr>
<tr>
<td>Flat Fee accounts</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>n/a</td>
</tr>
<tr>
<td>Basic MRD</td>
<td>14</td>
<td>32</td>
<td>34</td>
<td>16</td>
<td>n/a</td>
</tr>
<tr>
<td>Advanced MRD</td>
<td>20</td>
<td>39</td>
<td>48</td>
<td>14</td>
<td>n/a</td>
</tr>
<tr>
<td>Smartphone MRD</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Issues that Arose During the Pilot

- One device had a weak connection with the vehicle's data port, and actually fell out a few times.
- Status indicator light needs to be simplified and standardized.
- Biggest issue: Interface to electric and hybrid vehicles
  - Some electric vehicles and hybrids report data in non-standard formats.
    - Require costly and time-consuming reverse engineering.
  - May need to use other distance reporting methods, such as
    - manual odometer readings,
    - location-based devices, or
    - telematics.
Updates on Potential Technology
\textit{Dongles with OBDII + Bluetooth to Your Phone}

Emerging technology supports these apps:
\begin{itemize}
  \item Feedback on your driving style
  \item OBDII readout
  \item Find your car if you forget where you parked
  \item Young driver monitoring
  \item Geofencing
  \item Others
\end{itemize}

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiovox Car Connection</td>
<td>$170</td>
</tr>
<tr>
<td>Carvoyant</td>
<td>$150</td>
</tr>
<tr>
<td>Automatic</td>
<td>$70</td>
</tr>
<tr>
<td>Post-Crash Assistance w/ built in accelerometer</td>
<td>$70</td>
</tr>
</tbody>
</table>
Updates on Potential Technology

*Dongles with OBD-II*

- **Metromile:** true Pay-as-you-drive insurance
  - Silicon-valley startup
  - Base monthly fee (eg $33.50) + per-mile fee (3.5 cents)
  - Should offer significant savings for low-mileage drivers
  - No Bluetooth to smartphone connection but significant information via web
  - Location information sharing can be turned on and off
Updates on Potential Technology
Verizon + Delphi Advanced Telematics Dongles

- Like OBDII+Bluetooth dongles but
  more features
- Work without a cell phone present
- Easily added to a wireless plan of any Verizon customer
- Support additional apps using proprietary vehicle information
  (information not available on OBDII port)
  - Remote start
  - Lock and unlock car with smartphone
  - Post-crash using vehicular data
    (maybe more accurate than accelerometer)
Battelle refined their technology based on lessons learned from MN Trial

- New, user-friendly app for smartphones
- Mileage recording device stores months of data in case user’s phone isn’t present in the vehicle
Updates on Potential Technology

Battelle Technology Installation
Updates on Potential Technology Advances in Pay-As-You-Drive (PAYD) or Usage-Based Insurance

- 70% of insurers are planning, piloting or implementing telematics
- Capital cost of mileage reporting device now only $50-$75 (Insurance Networking News, February 19, 2013)
- Operating cost of mileage reporting device: ~$10/mo @10k units (industry sources)
  - Includes data transmission, license for maps servers
  - Could drop to $5/mo for large volumes (>>100k)
  - Further cost reduction possible by sales of anonymized data to data aggregators.
- Auto manufacturers increasingly interested
  - Ford and State Farm have partnered to offer pay as you drive insurance over Sync
  - Many others working on it (US and German automakers)
  - Technology suppliers working with automakers to provide data background
  - Could change or eventually undermine traditional car insurance
VMT AND REVENUE FORECASTS UPDATE
2012 Fuel Consumption Forecast

Forecast in January report did not account for new Federal CAFE standards

2013 Fuel Consumption Forecast

- Forecast in January report did not account for new Federal CAFE standards
- Revised forecasts only slightly lower

CORE POLICY ISSUES –
IN- AND OUT-OF-STATE TRAVEL
Travel in Washington by Out-of-state Travelers

Sketch-level Very Rough Estimate

- Analyzed available border crossing data
  - Canada: U.S. Customs & Border Protection
  - Spokane area: SRTC & KMPO travel survey
  - Portland area: Columbia River Crossing study and Washington Annual Traffic Report
  - Benton-Franklin area: Washington Annual Traffic Report

- Estimate average trip length
  - National Household Travel Survey
    - All trip purposes
    - Passenger vehicles only

- Compare to total Washington VMT
  - WSDOT Congestion Report
Travel in Washington by Out-of-State Travelers

10-Mile Average Trip Length (Scenario 1)

Note: Estimate based on sketch-level analysis of limited data.

1.0% of Washington VMT come from out-of-state passenger vehicles
Travel in Washington by Out-of-State Travelers
25-Mile Average Trip Length (Scenario 2)

Note: Estimate based on sketch-level analysis of limited data.

2.5% of Washington VMT come from out-of-state passenger vehicles

Washington State Road Usage Charge Assessment
Out-of-State Travel by Washington Residents

- Likely somewhat higher than VMT in Washington by out-of-staters:
  - Vancouver, WA – Portland commute higher in the Portland direction
  - Coeur d’Alene – Spokane commute higher in Spokane direction
  - Canada crossing: data unavailable, assume close to equal
CORE POLICY ISSUE:

URBAN VS. RURAL TRAVEL
(ANALYSIS FROM OREGON)
Urban and Rural Road Usage Charge Impacts
Methodology for Oregon DOT

- Telephone survey of 900 registered voters
- 300 each in urban, mixed, rural areas
- Quotas for age, gender, and county for representative sample
- Margin of error for 900 survey responses: +/- 3.3%, at 95% confidence level
- Margin of error for 300 survey responses: +/- 5.6%, at 95% confidence level
Urban and Rural Road Usage Charge Impacts

Classification of Counties

[Map of Oregon showing different counties classified as Urban, Mixed, or Rural]
### Urban and Rural Road Usage Charge Impacts

**Policy Priorities in Oregon**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Rank (Score)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>Economy and jobs</td>
<td>1 (8.1)</td>
</tr>
<tr>
<td>Cost of healthcare</td>
<td>2 (7.7)</td>
</tr>
<tr>
<td>Quality of K-12 education</td>
<td>3 (7.6)</td>
</tr>
<tr>
<td>Transportation, including congestion &amp; gas prices</td>
<td>4 (7.2)</td>
</tr>
<tr>
<td>Environment</td>
<td>5 (7.0)</td>
</tr>
</tbody>
</table>

- Transportation ranks behind other policy priorities, but not by a wide margin
- Transportation ranks as slightly more important in rural than urban areas
Maintaining roads ranks as the most important transportation issue, with funding second

Congestion is perceived as an important issue in urban areas but not in mixed or rural counties
### Urban and Rural Road Usage Charge Impacts

**Fairness of Road Usage Charging Vs. Fuel Tax**

<table>
<thead>
<tr>
<th>County Type</th>
<th>More fair</th>
<th>About the same</th>
<th>Less fair</th>
<th>Did not respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>20%</td>
<td>38%</td>
<td>31%</td>
<td>11%</td>
</tr>
<tr>
<td>Mixed</td>
<td>11%</td>
<td>34%</td>
<td>49%</td>
<td>6%</td>
</tr>
<tr>
<td>Rural</td>
<td>13%</td>
<td>36%</td>
<td>40%</td>
<td>11%</td>
</tr>
</tbody>
</table>

- Urban residents view road usage charging as “more fair” than fuel tax compared with rural residents.
- A minority in all areas view road usage charging as “less fair” than the fuel tax.
### Urban and Rural Road Usage Charge Impacts

**Vehicle Fleet Characteristics by County Type**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>2,629</td>
<td>6.02</td>
<td>3.12</td>
<td>22.28</td>
<td>0.12</td>
</tr>
<tr>
<td>Mixed</td>
<td>1,557</td>
<td>4.81</td>
<td>2.14</td>
<td>21.26</td>
<td>0.06</td>
</tr>
<tr>
<td>Rural</td>
<td>377</td>
<td>3.32</td>
<td>1.41</td>
<td>20.71</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Total</td>
<td>4,563</td>
<td>5.45</td>
<td>2.45</td>
<td>21.61</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*For purposes of this study, “efficient vehicles” are defined as electric vehicles, plug-in hybrid electric vehicles, and hybrid vehicles.*

- Fuel efficiency is improving more rapidly in urban and mixed areas than rural areas, where it actually declined slightly from 2009-2011.
- In Oregon 5.45% of all new vehicle registrations are “efficient,” while 3% of the total fleet in urban areas is efficient compared with 2% in mixed areas and 1.4% in rural areas.
<table>
<thead>
<tr>
<th>Most Important Factor</th>
<th>Urban</th>
<th>Mixed</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel efficiency</td>
<td>43%</td>
<td>32%</td>
<td>40%</td>
</tr>
<tr>
<td>Price</td>
<td>20%</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>Safety</td>
<td>17%</td>
<td>21%</td>
<td>19%</td>
</tr>
<tr>
<td>Performance</td>
<td>14%</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td>Did not respond</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Vehicle</th>
<th>Urban</th>
<th>Mixed</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider Electric</td>
<td>29%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Consider Hybrid</td>
<td>41%</td>
<td>29%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Fuel efficiency is the most important factor in next vehicle purchase decisions across all areas.

Urban residents are more likely to consider electric or hybrid vehicles than residents of rural or mixed counties.
Urban and Rural Road Usage Charge Impacts

Average Self-reported Trip Distances (Miles)

<table>
<thead>
<tr>
<th>Trip Purpose</th>
<th>Urban</th>
<th>Mixed</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical appointments</td>
<td>8.8</td>
<td>18.4</td>
<td>24.0</td>
</tr>
<tr>
<td>Clothes shopping</td>
<td>7.9</td>
<td>16.4</td>
<td>22.5</td>
</tr>
<tr>
<td>Work or school</td>
<td>11.1</td>
<td>15.1</td>
<td>16.0</td>
</tr>
<tr>
<td>Grocery shopping</td>
<td>4.0</td>
<td>9.1</td>
<td>14.8</td>
</tr>
<tr>
<td>Restaurants</td>
<td>5.3</td>
<td>7.9</td>
<td>11.6</td>
</tr>
</tbody>
</table>

- Rural residents tend to drive longer distances for all trips including medical appointments, shopping, and school.
### Urban and Rural Road Usage Charge Impacts

**Average Trip Frequency, by Trip Purpose (Percent)**

<table>
<thead>
<tr>
<th>Trip Purpose</th>
<th>Weekly U</th>
<th>Weekly M</th>
<th>Weekly R</th>
<th>Monthly U</th>
<th>Monthly M</th>
<th>Monthly R</th>
<th>Less frequently than monthly U</th>
<th>Less frequently than monthly M</th>
<th>Less frequently than monthly R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical appointments</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>25</td>
<td>28</td>
<td>24</td>
<td>64</td>
<td>64</td>
<td>66</td>
</tr>
<tr>
<td>Clothes shopping</td>
<td>14</td>
<td>13</td>
<td>14</td>
<td>42</td>
<td>40</td>
<td>33</td>
<td>44</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>Work or school</td>
<td>61</td>
<td>59</td>
<td>49</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Grocery shopping</td>
<td>82</td>
<td>79</td>
<td>73</td>
<td>12</td>
<td>17</td>
<td>20</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Restaurants</td>
<td>47</td>
<td>39</td>
<td>30</td>
<td>29</td>
<td>32</td>
<td>36</td>
<td>24</td>
<td>29</td>
<td>34</td>
</tr>
</tbody>
</table>

However, rural residents tend to make trips less frequently than residents of urban and mixed counties.
## Urban and Rural Road Usage Charge Impacts

### Self-reported Distance Driven Annually (Miles)

<table>
<thead>
<tr>
<th>County Type</th>
<th>Total miles driven (A)</th>
<th>Miles off road (B)</th>
<th>Total on-road miles (C = B - A)</th>
<th>Miles driven out-of-state (D)</th>
<th>Total miles on Oregon public roads (C - D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>12,843</td>
<td>721</td>
<td>12,122</td>
<td>765</td>
<td>11,357</td>
</tr>
<tr>
<td>Mixed</td>
<td>13,865</td>
<td>1,077</td>
<td>12,788</td>
<td>1,495</td>
<td>11,293</td>
</tr>
<tr>
<td>Rural</td>
<td>12,511</td>
<td>1,090</td>
<td>11,421</td>
<td>1,939</td>
<td>9,482</td>
</tr>
</tbody>
</table>

- The difference in miles driven among urban, mixed, and rural counties is not substantial.
- Rural motorists drive more off-road and out-of-state miles than other motorists. This holds true for "border" and "non-border" counties.
- These figures are self reported but nevertheless illuminate individuals’ collective impressions of their own situations.
Conclusions

- Oregonians have similar technology experience and capability regardless of urban vs. rural location
- Residents of all areas view road usage charging as less fair to rural residents

Behavior

- No substantial difference in distances driven by urban and rural residents
- Although rural residents drive farther for typical errands, they do so less frequently; they also have shorter commutes
- Rural households drive significantly fewer miles on Oregon public roads than their counterparts in urban areas

Vehicles

- Rural residents tend to drive less fuel-efficient vehicles than their urban counterparts; on the other hand, they tend to drive in conditions conducive to better fuel efficiency.
- Urban residents are far more likely to drive highly fuel efficient vehicles today and more likely to purchase them in the near future
CORE POLICY ISSUE:

PRIVACY
Constitution of the State of Washington

Article 1, Section 7:

“No person shall be disturbed in his private affairs, or his home invaded, without authority of law.”
Definition of Privacy

- Privacy involves the right to control one's personal information, and the ability to determine if and how that information should be obtained and used.

- Confidentiality is the means of protecting personal information, usually in the form of safeguarding the information from unauthorized disclosure to third parties.

It is in this sense that privacy is a much broader concept than confidentiality since it entails restrictions on a wide range of activities relating to personal information: its collection, retention, use and disclosure.
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Balance Operational Needs and Privacy Protection
OECD Principles for Governing Data Protection (1 of 4)

Consideration relative to data and privacy protection:

» What Interfaces are collecting data?
» What data is being collected?
» How is that data collected?
» For what purpose is the data collected?
» What happens to the data that is collected?
» Who has access to that data?
» How long is the data held?
» What steps may be taken to protect data?

OECD (Organization for Economic Co-operation and Development), 1980, defined the purpose of conferring rights upon data subjects and responsibilities upon data users (both Canada and the United States are signatories).
OECD Principles for Governing Data Protection (2 of 4)

- **Collection Limitation** - Data should be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject.

- **Data Quality** - Personal data should be relevant to the purposes for which they are to be used, and, to the extent necessary for those purposes, should be accurate, complete and kept up-to-date.

- **Purpose Specification** - The purposes for which personal data are collected should be specified not later than at the time of data collection and the subsequent use limited to the fulfillment of those purposes or such others as are not incompatible with those purposes and as are specified on each occasion of change of purpose.
OECD Principles for Governing Data Protection (3 of 4)

- **Use Limitation** - Personal data should not be disclosed, made available or otherwise used for purposes other than those specified in accordance with Paragraph 9 [Purpose Specification Principle] except: (a) with the consent of the data subject, or (b) by the authority of law.

- **Security Safeguards** - Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification or disclosure of data.

- **Openness** - There should be a general policy of openness about developments, practices and policies with respect to personal data. Means should be readily available of establishing the existence and nature of personal data, and the main purpose of their use, as well as the identity and usual residence of the data controller.

- **Accountability** - A data controller should be accountable for complying with measures which give effect to the principles stated above.
It is useful to think of the road usage charge system in broadest terms as having four main functional areas of operation:

- **Data Collection Systems**
- **Back Office Processing**
- **Customer Relations Management**
- **Enforcement**
- **Customers**
- **DVR**
Individual Protection

An individual should have the right:

» (A) To obtain from a data controller, or otherwise, confirmation of whether or not the data controller has data relating to him

» (B) To have communicated to him, data relating to him:
  – (i) Within a reasonable time
  – (ii) At a charge, if any, that is not excessive
  – (iii) In a reasonable manner
  – (iv) In a form that is readily intelligible to him

» (C) To be given reasons if a request made under subparagraph (a) and (b) is denied, and to be able to challenge such denial

» (D) To challenge data relating to him and, if the challenge is successful, to have the data erased, rectified, completed or amended
Privacy principles for testing the system concepts for privacy protection:

- What Interfaces are collecting data?
Privacy principles for testing the system concepts for privacy protection:

What data is being collected?

“Section 9 (1) (b) ‘Personally identifiable information’ means any information that identifies or describes a person, including, but not limited to, the person’s travel pattern data, per-mile road usage charge account number, address, telephone number, electronic mail address, driver license or identification card number, registration plate number, photograph, recorded images, bank account information and credit card number. (c) ‘VIN summary report’ means a monthly report by the department or a certified service provider that includes a summary of all vehicle identification numbers of subject vehicles and associated total metered use during the month. The report may not include location information.”
Privacy principles for testing the system concepts for privacy protection:

How is that data collected?

“(a) ‘Certified service provider’ means an entity that has entered into an agreement with the Department of Transportation under ORS 367.806 for reporting metered use by a subject vehicle or for administrative services related to the collection of per-mile road usage charges and authorized employees of the entity.
Privacy principles for testing the system concepts for privacy protection:

For what purpose is the data collected?

“(2) Except as provided in subsections (3) and (4) of this section, personally identifiable information used for reporting metered use or for administrative services related to the collection of the per-mile road usage charge imposed under section 3 of this 2013 Act is confidential within the meaning of ORS 192.502 (9)(a) and is a public record exempt from disclosure under ORS 192.410 to 192.505.”
Privacy principles for testing the system concepts for privacy protection:

What happens to the data that is collected?

“(3)(a) The department, a certified service provider or a contractor for a certified service provider may not disclose personally identifiable information used or developed in the conduct of these services...”
Privacy principles for testing the system concepts for privacy protection:

Who has access to that data?

“...may not disclose personally identifiable information used or developed in the conduct of these services to any person except:

“(A) The registered owner or lessee;
“(B) A financial institution, for the purpose of collecting per-mile road usage charges owed;
“(C) Employees of the department;
“(D) A certified service provider;
“(E) A contractor for a certified service provider, but only to the extent the contractor provides services directly related to the certified service provider’s agreement with the department; or
“(F) An entity expressly approved to receive the information by the registered owner or lessee of the subject vehicle.”
Privacy principles for testing the system concepts for privacy protection:

- **How long is the data held?**

“(4) (a) Not later than **30 days** after completion of payment processing, dispute resolution for a single reporting period or a noncompliance investigation, whichever is latest, the department and certified service providers shall destroy records of the location and daily metered use of subject vehicles.

“(b) Notwithstanding paragraph (a) of this subsection:

“(A) For purposes of traffic management and research, the department and certified service providers may retain, aggregate and use information in the records after removing personally identifiable information.

(B) A certified service provider may retain the records if the registered owner or lessee consents to the retention. Consent under this subparagraph does not entitle the department to obtain or use the records or the information contained in the records.
Privacy principles for testing the system concepts for privacy protection:

- What steps may be taken to protect data?

“(5) The department, in any agreement with a certified service provider, shall provide for penalties if the certified service provider violates this section.”
Lessons for System Design

- Be clear what you will do with people’s data and demonstrate that you are doing it
  - Transparency is a key element of delivering trust, particularly in regard to securely holding and processing personal data
  - More will be expected from service providers in terms of information about:
    - Why personal data is being captured
    - How it will be processed
    - How long the data will be retained
    - The circumstances under which it will be deleted

- These are important components of delivering a robust solution to users and could potentially be key differentiators in a future competitive market
ACTION ITEMS AND NEXT STEPS