



Road Usage Charge Pilot Program Administration and Lessons Learned

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Oregon Department of Transportation

RUCPP ADMINISTRATION



Administration Activities

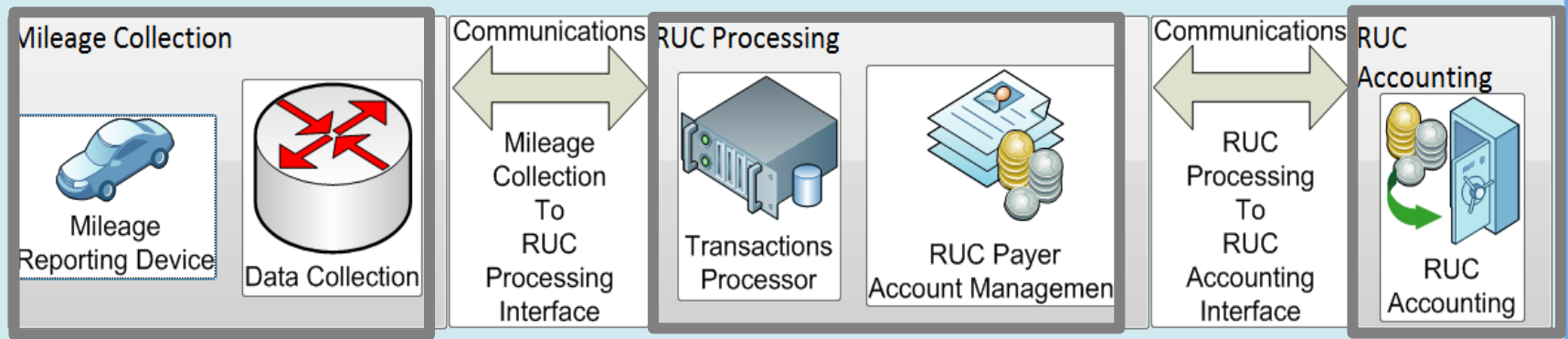
- Procurement of RUCPP hardware and services
- System testing and acceptance
- Participant sign-up and on-boarding assistance
- Participant support during pilot (“Help Desk”)
- Off-boarding



Procurement Approach

- Private sector involvement → key to system success
 - Leverage existing hardware and infrastructure to minimize costs
 - Initial step in establishing an “open market” for RUC services

Road Usage Charge System





Procurement Approach (cont.)

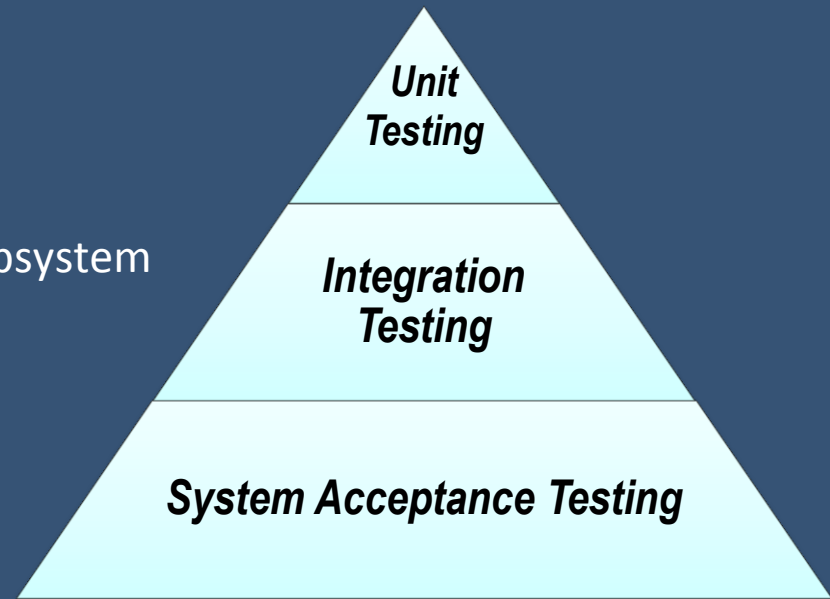
- Potential vendor workshop and one-on-one interviews
 - 20 interviews over 3 days
- Request for Information (RFI)
 - 26 companies responded
- Request for Proposal (RFP)
 - 9 proposals (representing 26 companies) received
- Proposal review and downselect
 - Demonstrations and unit testing of 3 vendors
- 2 vendor teams selected for RUCPP
 - Sanef (Account Management)
 - IMS (Part of Sanef Team for Basic and Advanced MRDs)
 - Raytheon (Smartphone app and MRD)





System Testing and Acceptance

- Unit Testing
 - Part of downselect process
- Integration Testing
 - Testing of integrated components and subsystem
- System Acceptance Testing
 - End-to-end testing of the entire system
 - Accuracy (mileage, fuel use, invoicing)
 - As it would be used by pilot participants
- Three Phases of Acceptance and On-Boarding
 - Nov 1, 2012: Basic and Advanced for gas vehicles
 - Dec 1, 2012: Basic and Advanced for hybrid and electric vehicles
 - Jan 1, 2013: Smartphone Plan



For the actual RUC → **“Certification”**



Why Testing is Needed (Sometimes)

| Item Description | Amount |
|--|-------------|
| Vehicle: Nissan LEAF License Plate Number: E254588 PLAN: BASIC | |
| Mileage Tax | |
| Total Mileage | 10.90 miles |
| Oregon Taxable Miles | 10.90 miles |
| Fuel Tax Refund | 51.71 gals |



Pilot Start Up

- All participants required to sign agreement
 - Oregon participants agreed to actually pay usage charge
- Verification of vehicle compatibility with reporting device
- Participants selected plan and signed up via participant website

| Plan/OBU | Oregon | Washington | Nevada | Total |
|-------------------------|-----------|------------|-----------|-----------|
| Total Sanef Advanced | 24 | 16 | 7 | 47 |
| Total Sanef Basic | 8 | 5 | 16 | 29 |
| Total ODOT Basic | 7 | 0 | 0 | 7 |
| Total Smartphone | 4 | 0 | 0 | 4 |
| Total Prepaid Flat Rate | 1 | 0 | 0 | 1 |
| Totals | 44 | 21 | 23 | 88 |



Plan Choice (Participant Website)

Choosing your plan

To activate your account, you must choose a charging plan. Your charging plan will include a road usage charge service provider – either ODOT or a private provider, Sanef – and a method to report the miles you drive (click on the plan title in the table below).

Need help? Call toll-free 855-797-1265 or RUCPP@odot.state.or.us

Plan Options

| | Miles Reported | Invoice | Payment | Online account management | Uses GPS? |
|------------------------------|--|-----------------|-------------------|---------------------------|--|
| ODOT Basic Plan | All | Mailed Monthly | Check | No | No, does not report where miles are driven |
| ODOT Flat Rate Plan | N/A | Once, at start | Check | No | No device |
| Sanef Basic Plan | All | Emailed Monthly | credit/debit card | Yes | No, does not report where miles are driven |
| Sanef Advanced Plan | Public roads in Oregon only | Emailed Monthly | Credit/debit card | Yes | Yes |
| Sanef Smartphone Plan | With application running, only roads in Oregon; without application running, all roads | Emailed Monthly | Credit/debit card | Yes | Yes, when the application is running |



Participant On-Boarding

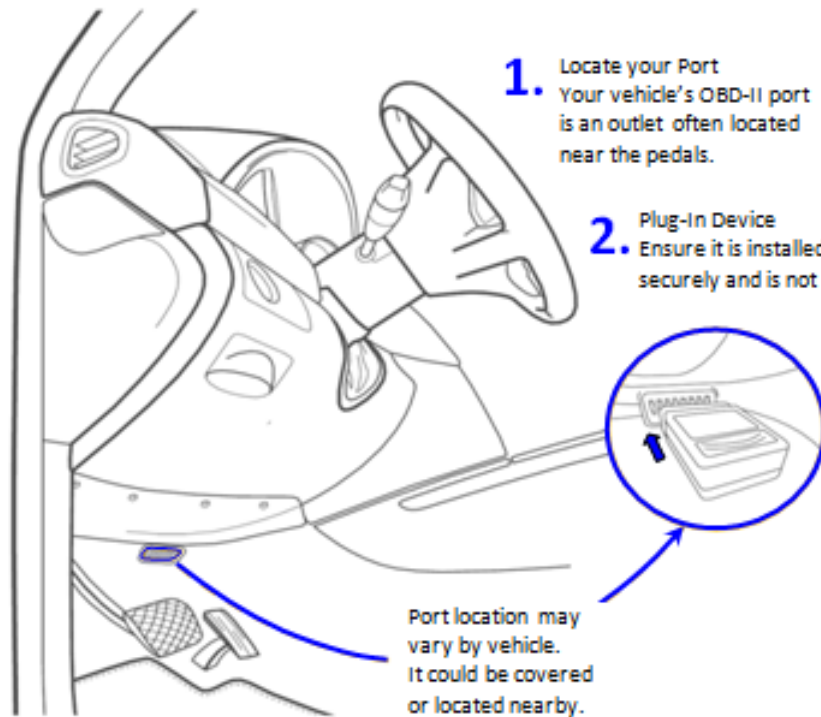
- Regular emails from Jim Whitty to participants at key points of the pilot process
 - Time to sign up and choose your plan
 - Mileage collection will begin on the first of the month
 - Invoices will be sent out on the 5th of the month
 - Help desk contact information
- Follow-up calls from participant coordinator as appropriate
- Devices mailed out to participants with instructions
 - Self-installation





Installation Instructions

HOW TO INSTALL THE MILEAGE REPORTING DEVICE



1. **Locate your Port**
Your vehicle's OBD-II port is an outlet often located near the pedals.
2. **Plug-In Device**
Ensure it is installed securely and is not loose.

Port location may vary by vehicle. It could be covered or located nearby.

Once installed, it is important you wait 1-2 minutes before starting your vehicle to allow the Device to configure.

Your mileage data will be automatically recorded and sent for processing.

It is important to ensure that the Mileage Reporting Device does not interfere with your ability to safely enter, exit, or operate the vehicle. If so, contact the Help Desk.

If your OBU becomes disconnected for any reason, simply repeat these steps.



Invoicing

From :

Sanef S.A.
8130 SW Beaverton-Hillsdale Hwy
Portland, Oregon
97225

On behalf of :

Road Usage Charge Pilot Program
355 Capitol St. NE MS 32
Salem, Oregon
97301-3871



To :

Chuck Larsen
2262 37th place NW
Salem, Oregon
97304

Invoice No: SI1210-19
Invoice Month: September 2012
Issue Date: Oct 25 2012

ROAD USAGE CHARGE PILOT PROGRAM CUSTOMER INVOICE

| Item Description | Amount | Rate (\$) | Subtotal |
|--|--------------|-----------------|-------------|
| Vehicle: Ford Mustang License Plate Number: 687 CGT PLAN: ADVANCED | | | |
| Mileage Tax | | | |
| Total Mileage | 176.30 miles | | |
| Oregon Taxable Miles | 176.30 miles | \$0.0156 | 2.75 |
| Fuel Tax Refund | 7.65 gals | \$0.3000 | -2.30 |
| | | Subtotal | 0.45 |

TOTAL Mileage Tax Due

Total Mileage Tax Due **\$0.45**

Payment Due Date **Nov 25 12**

Your account balance **\$0.45**

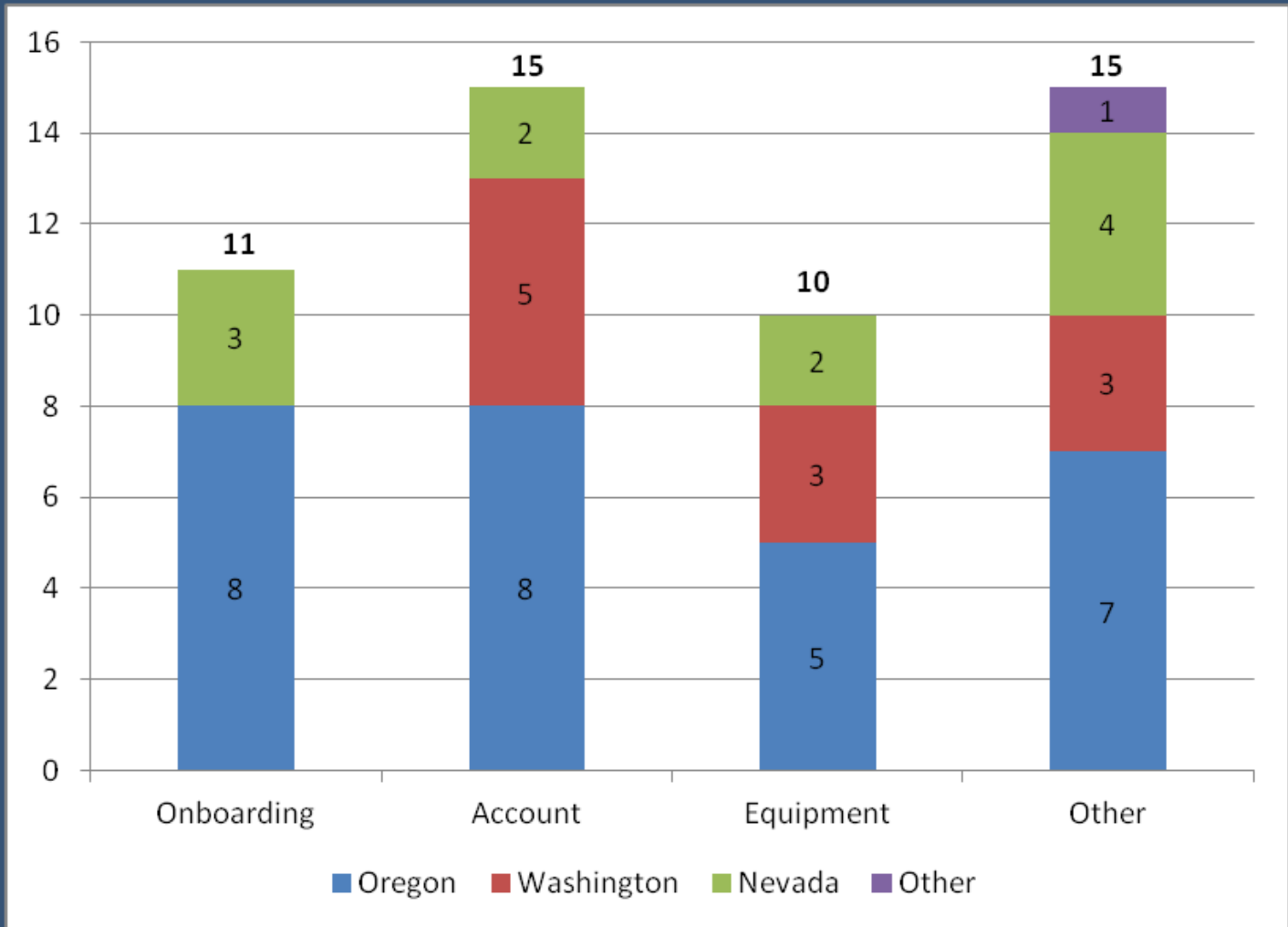


RUCPP Help Desk Operations

- Toll free numbers and email addresses
- Hours of operation
 - M-F: 7 AM – 9 PM
 - Weekends / Holidays: 10 AM – 2 PM
- Calls received by a local call center
 - Used a script; put information into an email
- Designated CH2M HILL staff looked for emails every 2 hours max
- Respond back to participant; follow up with vendor as required
 - Log including how and when resolved
- Throughout the 4 months of RUCPP operation; Help Desk received 51 requests
 - Onboarding issues, account, equipment and other issues



Help Desk Operations





Oregon Department of Transportation

LESSONS LEARNED



RUCPP Goal: “Feasibility Validation”

Demonstrate to the Oregon Road User Fee Task Force (RUFTF), state legislators, and other stakeholders that:

- Overall goals and objectives of a Road Usage Charging (RUC) system can be achieved
- Proposed system concepts are viable
- Vendor community has the ability to provide and implement system components required for an efficient and “open” RUC.



Specific RUCPP Goals

- Provide choices to motorists
- Do not mandate a Global Positioning System (GPS) box for motorists' cars
- Make the system accurate, as well as simple and easy to use
 - Mileage accuracy = +/- 2% of odometer reading
- Provide credits or refunds for fuel taxes paid for vehicles that pay the mileage-based RUC (preferably via automated means)
- Allow the private sector to provide data collection options and payment options
- Base the system design on an open architecture using common standards for interoperable system components and processes
 - Mileage Reporting Devices from 2 different vendors communicating with a 3rd vendor's account management subsystem via project standard protocol



Lessons Learned

- OBD-II standard developed for monitoring emissions
 - Use average EPA MPG values for some vehicles (fuel tax refund)
- Enhanced monitoring of “connectivity”
- RUC should become a “value added” to other vehicle service offerings
 - Pay As You Drive Insurance (PAYD)
 - Concierge services
 - Cell phone offerings
- Telematics are the future
 - No need for an external device
 - Projected that 49% of new vehicles will have telematics by 2017

