



WASHINGTON STATE ROAD USAGE CHARGE Steering Committee Meeting



November 9, 2017
Mercer Island Community & Event Center,
Mercer Island, Washington

WELCOME AND INTRODUCTIONS

- **Steering Committee member self-introductions**
- **Recognition of invited guests**

MEETING PREVIEW

Jeff Doyle,
Project Manager
D'Artagnan Consulting

- **Summary of WA RUC Pilot Project**
- **Meeting objectives**

WA RUC PILOT PROJECT AT-A-GLANCE

- Research question: could a per-mile charge someday replace the state's gas tax?
- Seeking 2,000 Washington drivers to help test a RUC system – no cost to participate.
- 12-month test, no collection of actual money, periodic surveys of participants.
- Drivers can choose from among four mileage reporting options – from no-tech to high-tech. GPS (location) data is not required.
- How out-of-state miles will be treated is a key research topic for the pilot test.

IMPORTANT POINTS

- RUC is only one option being considered to stabilize transportation revenues in the coming years
- Purpose of the pilot project: find out what Washington drivers like, dislike and would want changed in any future RUC system
- RUC is being investigated as a replacement for the state gas tax – not in addition to the gas tax
- The results of this research will be forwarded to WSTC and the legislature in 2020 for their consideration

MORE INFORMATION ON WA RUC

- Fact sheet (on back table, and on website)
- WA RUC web site contains all prior meeting information and research materials:

www.WaRoadUsageCharge.org

- Questions? Call or email:

1-833-WASH-RUC (833-927-4782)

info@waroadusagecharge.org

OBJECTIVES FOR TODAY'S MEETING

- Report on work-in-progress
- Demonstrate how participants will experience the pilot project
- Display how the back-office system for WA RUC will work
- Gain Steering Committee feedback on two work products (Evaluation Plan and Policy Research Work Plan)

STSFA ROUND 2 GRANTS

Jeff Doyle,
Project Manager
D'Artagnan Consulting

- **Washington's Round 2 award**
- **Other states' Round 2 awards**

FEDERAL FAST ACT: SURFACE TRANSPORTATION SYSTEM FUNDING ALTERNATIVES (STSFA) GRANT PROGRAM

FHWA administers STSFA grant program

- \$95 M over 5 years (2016-2020)
- Round 1 (October 2016): total of \$15 M awarded to seven states
- Round 2 (October 2017): total of \$15.5 M awarded to six states

In 2016, Washington received a Round 1 grant award:

- Fully funded Stage 1 (Final Design & Set-up, \$3.874 M)
- Did NOT fund Stage 2 (12-month live pilot) and Stage 3 (evaluation and reporting)

WASHINGTON'S ROUND 2 STSFA AWARD

WSTC's request for \$4.6 M was granted

- All stages of the Pilot Project are now fully funded

WA RUC project scope was enhanced:

- Added the Mileage Permit option to test in the pilot
- Privacy Impact Assessment will be conducted; intent is to develop a model for future RUC systems
- Proof-of-concept to test a multi-jurisdictional clearinghouse (“Hub”) that can securely and efficiently collect and distribute RUC revenue between states
- Expanded the pilot to include drivers from Idaho – a non-RUC state
- Research and analysis on 18 identified (but unresolved) RUC policy issues

AWARDS TO OTHER STATES

Six other grants were made (Colorado was the only new applicant):

- **Caltrans** (\$1.75 M): will explore ways to collect mileage-based charges at retail gas stations and EV charging stations
- **Colorado DOT** (\$500k): will explore data collection mechanisms
- **I-95 Corridor Coalition** (\$975k): Delaware will lead research into equity and privacy issues along the I-95 corridor
- **Missouri DOT** (\$2.77 M): examining potential MPG-based registration fee to replace registration fee based on engine horsepower
- **Oregon DOT** (\$2.32 M): will examine ways to improve their existing RUC program
- **RUC West Consortium** (\$2.6 M): Oregon DOT will lead a pilot between Oregon and California, with the intent of expanding their approach regionally (western US)

STAGE 1 PILOT PROJECT ACTIVITIES

Jeff Doyle,
Project Manager
D'Artagnan Consulting

- **Technical Design & Set-up**

STATUS OF TECHNICAL DESIGN & SETUP

Completed or nearing completion:

- Technical specifications and test plans
- Setup of service providers, reporting systems, accounting systems, etc.
- Design and programming of smartphone application
- Designing the multi-jurisdictional RUC clearinghouse function (Hub)

To be completed by December:

- Help desk and participant support
- Partnerships with DOL agents/subagents to provide in-person odometer verification
- Finalize the evaluation plan
- System testing

Scheduled for later (after January 2):

- Organizational design (potential roles for government, private sector in a future RUC system)
- Testing and launch of financial interoperability (Hub) with OReGO

PILOT PROJECT VIRTUAL TOUR

- **Communicating with the public and recruiting test drivers**
- **Enrolling test drivers**
- **Providing RUC services to drivers**
- **Live demo: mileage reporting by mobile phone**
- **Back-office details**

VIRTUAL TOUR APPROACH

- Public view: test drivers' experience

VIRTUAL TOUR APPROACH

- Back-office view: governmental and private firm perspective

PILOT PROJECT AWARENESS, INFORMATION AND RECRUITMENT

Ara Swanson and
Alison Peters,
Envirolssues

- **Project Communications**
- **Volunteer Recruitment**

COMMUNICATIONS GOALS REMAIN



Inform and educate the public.



Recruit participants into the pilot project from across the state.



Generate broad understanding for the pilot project.

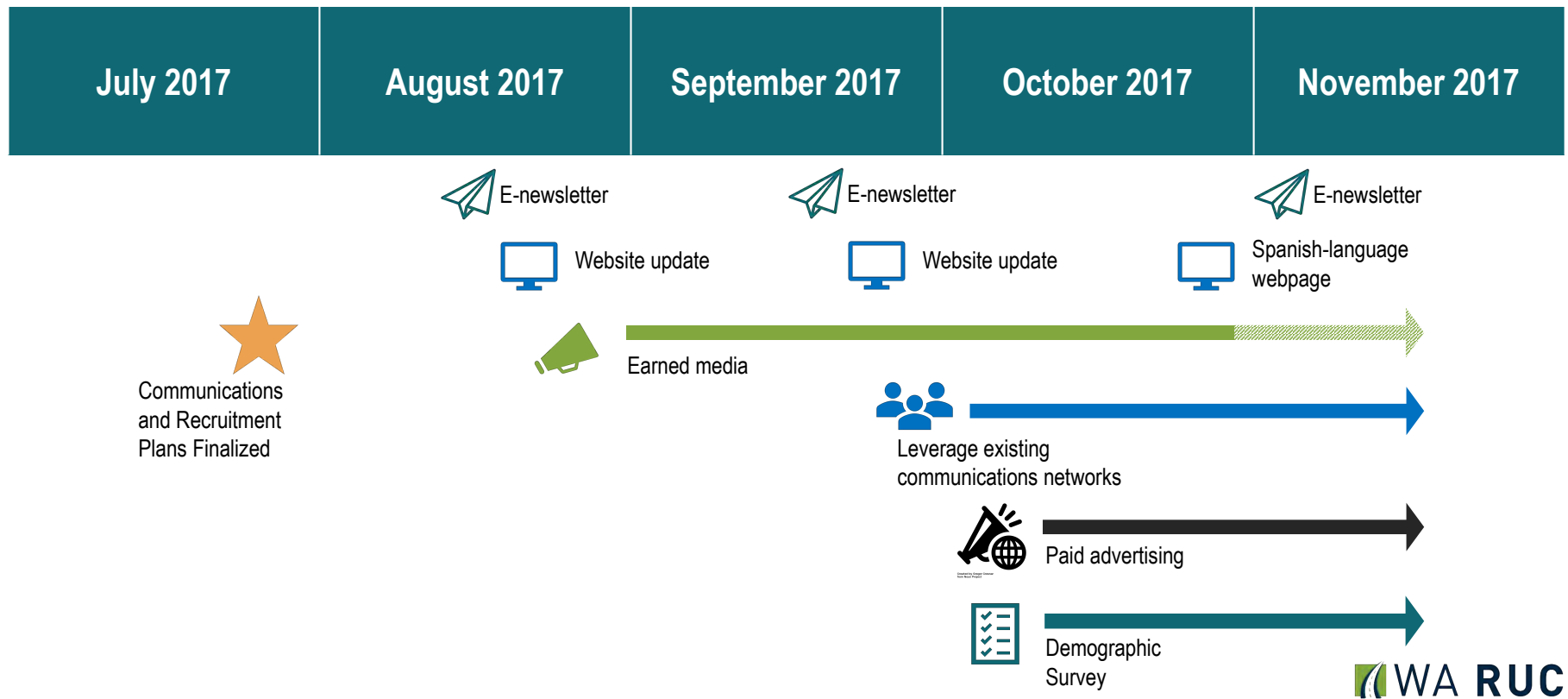


Cultivate balanced and accurate media coverage.



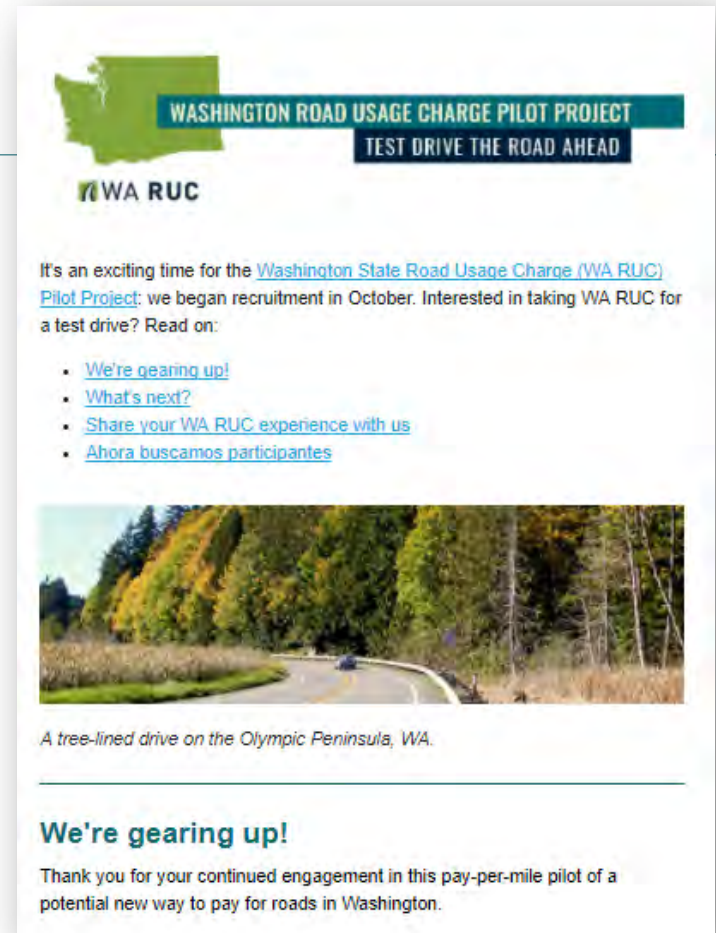
Assess public opinion before and throughout the course of the pilot.

COMMUNICATIONS AND RECRUITMENT ACTIVITIES



E-NEWSLETTERS

	Total Number of Recipients	Open Rate
March 2017	894	74%
August 2017	1,101	55%
September 2017	2,375	59%
November 2017	3,342	58%



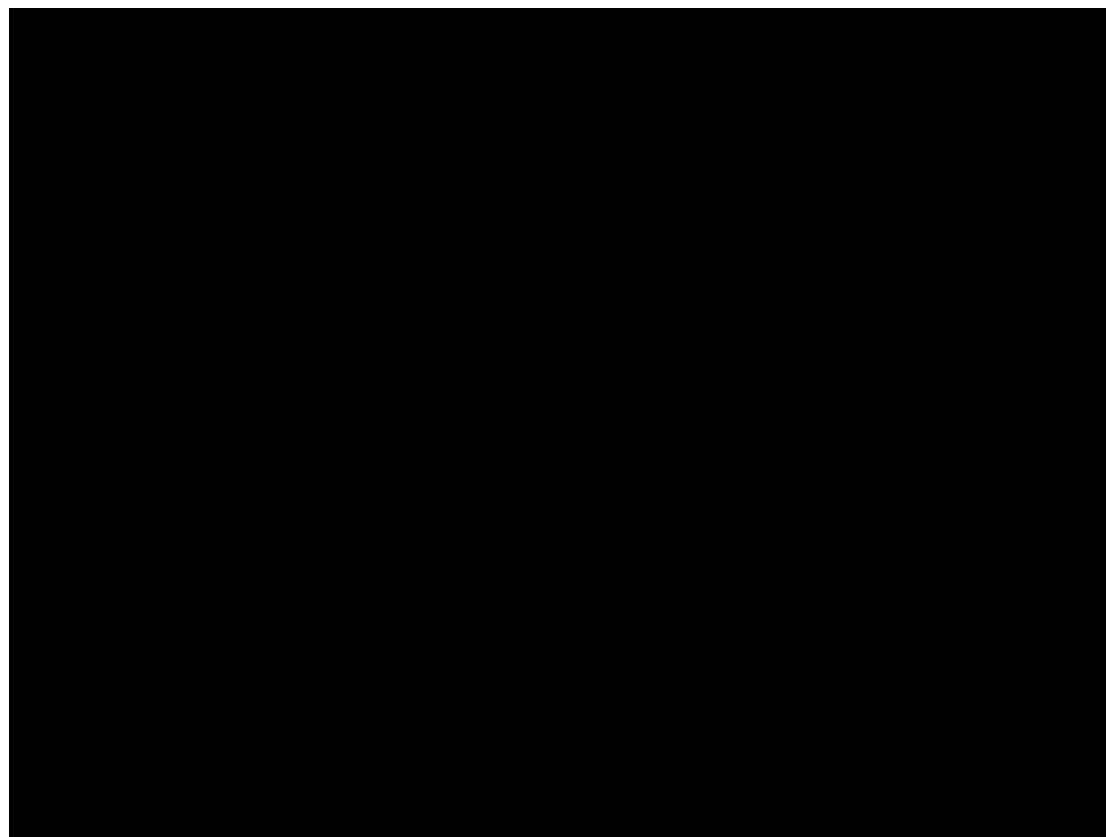
WEBSITE UPDATES

- Aim to gradually add information and details about the pilot and to support recruitment
- September updates included a new sign-up page, updated FAQ and recruitment video
- October updates added Spanish language page and sign-up

The screenshot shows the English version of the WA RUC website. The header includes the logo and navigation links: HOME, ABOUT, FAQs, CONTACT, and SIGN UP. The main heading is "HOP IN THE DRIVERS SEAT". Below it is a sub-heading "ROAD USAGE CHARGE" with an illustration of three cars (green, red, and brown) and a play button icon. The text reads: "Help Washington explore a new way to pay for roads and bridges. Sign up to test a road usage charge where drivers would simulate paying for the miles they drive rather than the gallons of gas they buy." Below this is another sub-heading "NOW RECRUITING 2,000 DRIVERS" followed by text: "We are aiming to recruit at least 2,000 drivers throughout Washington to participate in this pilot project to provide feedback on your experience. Your input will help shape policy in Olympia by helping state lawmakers understand how this type of charge might work."

The screenshot shows the Spanish version of the WA RUC website. The header includes the logo and navigation links: HOME, SIGN UP, ABOUT, FAQs, and ESPAÑOL. The main heading is "SIÉNTESE EN EL ASIENTO DEL CONDUCTOR". Below it is a sub-heading "ROAD USAGE CHARGE" with an illustration of three cars (green, red, and brown) and a play button icon. The text reads: "Ayude a Washington a buscar una nueva forma de financiar las carreteras y puentes. Regístrese para realizar una prueba de simulación de cobro por el uso de las carreteras, donde los conductores pagan por las millas que conducen, en vez de pagar por los galones de gasolina que compran." Below this is another sub-heading "AHORA BUSCAMOS 2,000 CONDUCTORES" followed by text: "Nuestro objetivo es encontrar a 2,000 conductores por todo Washington para que participen en este proyecto piloto y nos den su opinión sobre su". At the bottom right, there is a prominent orange button that says "¡REGÍSTRESE!".

RECRUITMENT VIDEO



RECRUITMENT VIDEO

https://www.youtube.com/watch?v=hhaVaZv_oTM

EARNED MEDIA

- **Mid-August: Initial outreach** to reporters and publications at traditional newspapers through Washington state
- **Late October / Early November: Targeted outreach** to key publications in target geographic areas
- **Results:** From August through early November, over **50 media stories** were published (print, online radio, TV)

Drivers sought for pay-per-mile pilot program

Ed Friedrich, ed.friedrich@kitsapsun.com | Published 2:45 p.m. PT Aug. 24, 2017 | Updated 3:17 p.m. PT Aug. 24, 2017



(Photo: Getty Images)

OLYMPIA — A pay-per-mile fee has been studied to death. Now it's time to put it to the test.

The Washington State Transportation Commission and a 25-person steering committee for five years have been assessing a road use charge as a possible replacement for the declining gas tax. Soon they'll ask the public to test drive the potential new method for funding roads and ferries.

They're seeking 2,000 drivers to participate in the 12-month Washington Road Usage Charge Project that will help them and the Legislature better understand whether paying by the mile is a viable option for future road funding. Recruitment of volunteer drivers will begin in September and continue through late 2017.

"It's simply a scientific test to see how it works from a technical, mechanical and operations aspect, but more importantly it's an opportunity for residents across the state to experience it and give feedback to the state on what worked and what didn't work and what they liked and didn't like," said Reema Griffith, Transportation Commission executive director.

As more efficient vehicles consume less fuel or — in the case of the growing number of electric cars — none at all, gas tax revenues decline. Forecasts say the average mile per gallon in Washington will dip from 20.5 now to 35 in 2035, resulting in 45 percent less revenue per mile. The state gas tax rate now is 49.9 cents per gallon, second highest in the nation behind Pennsylvania. A road use charge could provide a more sustainable source.



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PSNS BANGOR KEYPORT

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Make Your Claim

Kitsap Sun, August 24, 2017

ADVERTISING – SOCIAL MEDIA

Washington State Transportation Commission
September 29 at 9:17am · 🌐

The gas tax pays for road, bridge and ferry repairs. But what if we paid by the mile, instead of by the gallons of gas we buy?
Help us test a road usage charge – sign up today!



Join the Pilot Project
Test drive the road ahead.

WWW.WAROADUSAGECHARGE.ORG **Sign Up**


Like Comment Share

👍👎🗨️ 31 Chronological

11 Shares 64 Comments

Washington State Transportation Commission
October 23 at 8:07pm · 🌐

The gas tax pays for road and bridge repairs. But what if we paid by the mile, instead of by the gallons of gas we buy?
Help us test a road usage charge – sign up today!



Join the Pilot Project
Test drive the road ahead.

WAROADUSAGECHARGE.ORG **Sign Up**

2.5K Views

Like Comment Share

Washington State Transportation Commission
November 1 at 2:07pm · 🌐

El impuesto de la gasolina se usa para financiar nuestras carreteras, puentes y sistemas de transbordadores. ¿Pero qué pasaría si pagaríamos por las millas que conducimos, en vez de pagar por los galones de gasolina que compramos?
Ayúdenos a probar el cobro por el uso de las carreteras. ¡Regístrese hoy!
See Translation



Participe en el proyecto piloto
Pruebe la carretera adelante.

WWW.WAROADUSAGECHARGE.ORG/REGISTRATE **Sign Up**

Like Comment Share

ADVERTISING – PRINT AND ONLINE

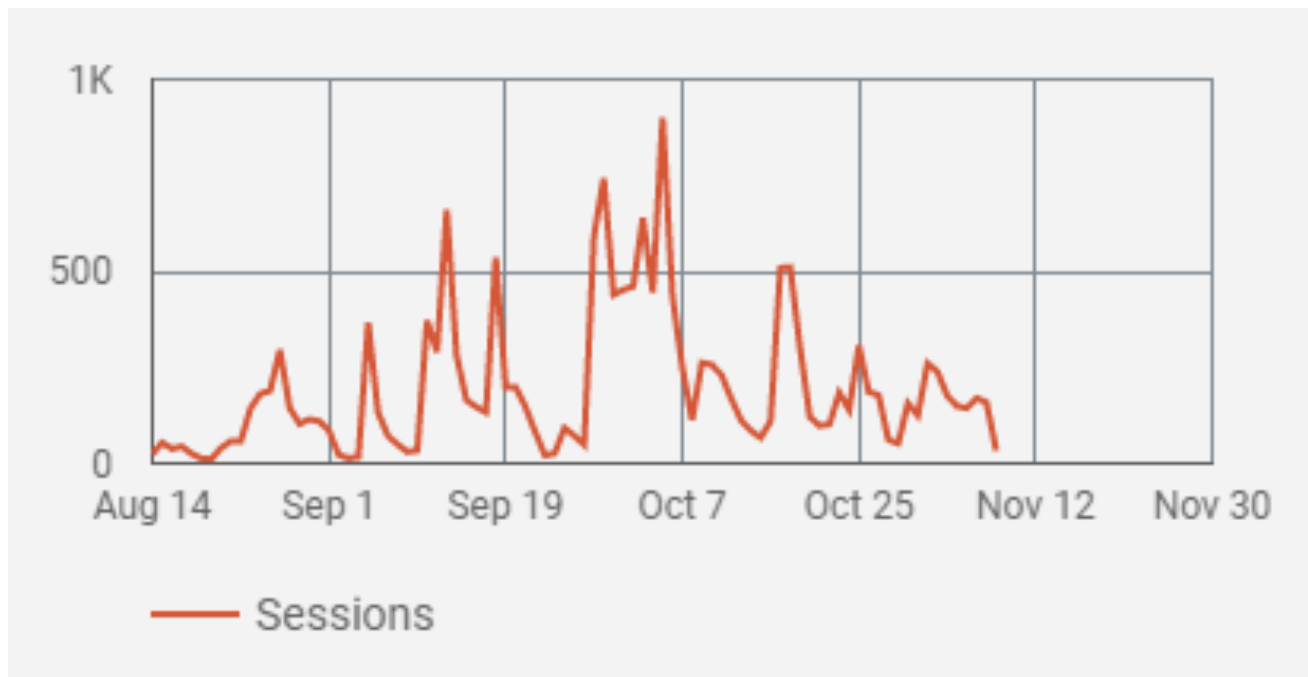


LEVERAGING EXISTING COMMUNICATIONS NETWORKS

- Reaching out to targeted, statewide organizations to help share information about the WA RUC Pilot Project and drive interest list sign-ups
- Provide content to be shared, including newsletter text, social media content, website content, sample blog posts and more.



WEBSITE ANALYTICS – NUMBER OF SESSIONS BY DATE



Data between August 14 and November 6, 2017

WEBSITE ANALYTICS – TYPES OF USERS



Data between August 14 and November 6, 2017

WEBSITE ANALYTICS – TOP REFERRALS

	Source	Pageviews
1	Direct	6,933
2.	Facebook (desktop)	6,079
3.	Google	2,486
4.	king5.com	1,892
5.	wstc.wa.gov	1,471
6.	Facebook (mobile)	1,099
7.	WA RUC e-newsletter	1,086
8.	mynorthwest.com	758
9.	seattletimes.com	725
10.	kitsapsun.com	442

Data between August 14 and November 6, 2017

WEBSITE ANALYTICS – TOP CONTENT

	Page	Pageviews
1	Home	21,717
2.	Sign-up	1,903
3.	FAQs	1,789
4.	About	904
5.	Contact	565
6.	Regístrate (Spanish)	350

Data between August 14 and November 6, 2017

PARTICIPANT SIGN-UP: HERE'S HOW IT WORKS

HERE'S HOW IT WORKS

STEP 1: Let us know you're interested in being a participant in the pilot by signing up here.

SIGN UP NOW

STEP 2: Reply to your confirmation email to finalize your sign up.



STEP 3: Complete the short interest survey, which will be emailed to you after you sign up for the interest list.



STEP 4: To ensure we have a diverse set of people from all over the state, we will invite at least 2000 drivers to participate in the pilot.

STEP 5: In January 2018, invited participants will select a mileage recording method.

CONGRATULATIONS!
You are now an official pilot participant

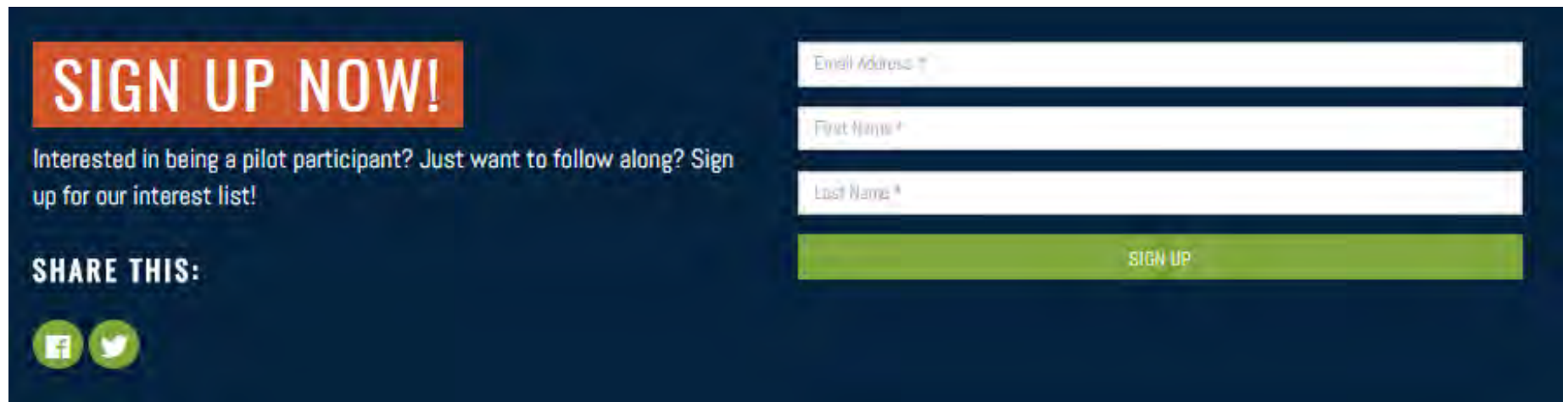


STEP 6: Start recording your miles!

STEP 7: During the pilot, review mock invoices and complete quarterly surveys. We will recognize your efforts with periodic gift cards.

PARTICIPANT SIGN-UP: STEP 1 – SIGN-UP

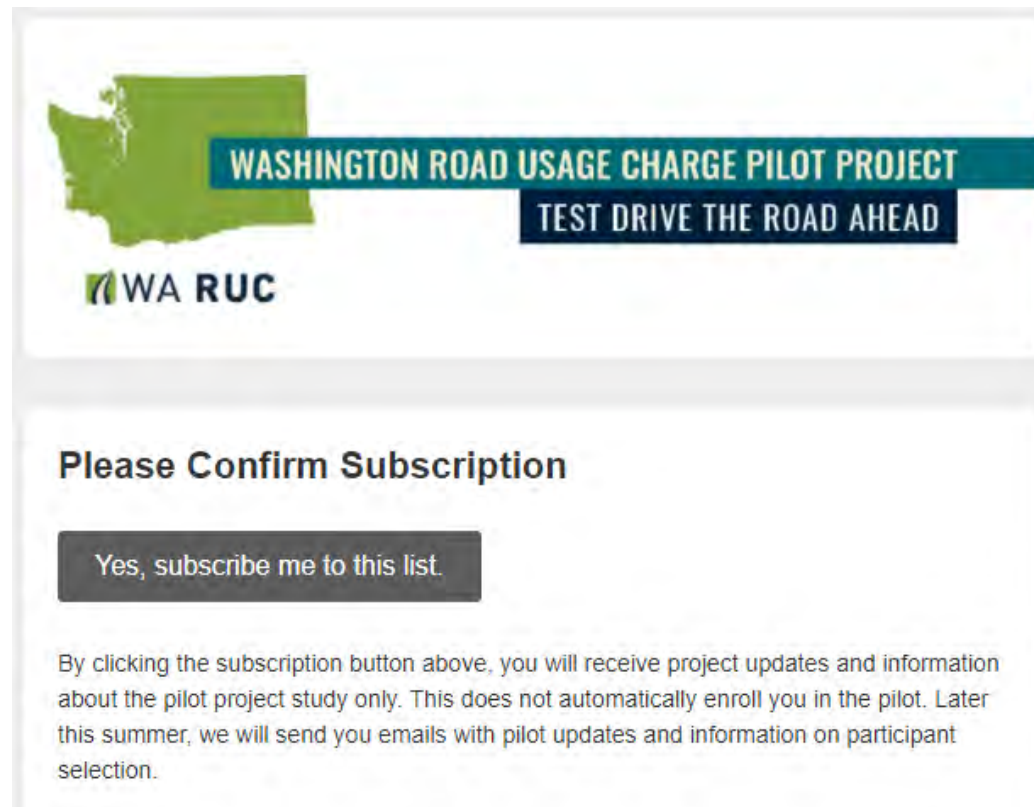
Step 1: Potential participants sign-up on the interest list at the WA RUC website





The screenshot shows a dark blue sign-up form. On the left, there is a red button that says "SIGN UP NOW!". Below it, the text reads: "Interested in being a pilot participant? Just want to follow along? Sign up for our interest list!". Underneath that is the text "SHARE THIS:" followed by icons for Facebook and Twitter. On the right side of the form, there are three white input fields labeled "Email Address *", "First Name *", and "Last Name *". Below these fields is a green button labeled "SIGN UP".

PARTICIPANT SIGN-UP: STEP 2 – CONFIRM EMAIL ADDRESS AND SIGN-UP

Step 2:
Potential participants confirm email address to finalize sign-up on interest list.



 **WASHINGTON ROAD USAGE CHARGE PILOT PROJECT**
TEST DRIVE THE ROAD AHEAD

 **WA RUC**

Please Confirm Subscription

By clicking the subscription button above, you will receive project updates and information about the pilot project study only. This does not automatically enroll you in the pilot. Later this summer, we will send you emails with pilot updates and information on participant selection.

PUBLIC'S PERSPECTIVE

PARTICIPANT SIGN-UP: STEP 3 – COMPLETE DEMOGRAPHIC SURVEY

Step 3: Potential participants complete short interest survey (unique survey link emailed to each email address)

Washington Road Usage Charge Volunteer Survey

3. How did you hear about the Washington Road Usage Charge pilot project? Please select all that apply.

- Print newspaper story or article
- Online advertisement, such as YouTube
- Radio advertisement
- Radio or TV news
- Word of mouth
- A community organization
- Social media sites, such as Twitter, Facebook, Tumblr, Instagram
- Visited the project website at www.waroadusagecharge.org
- Other - Write In:

Back Next

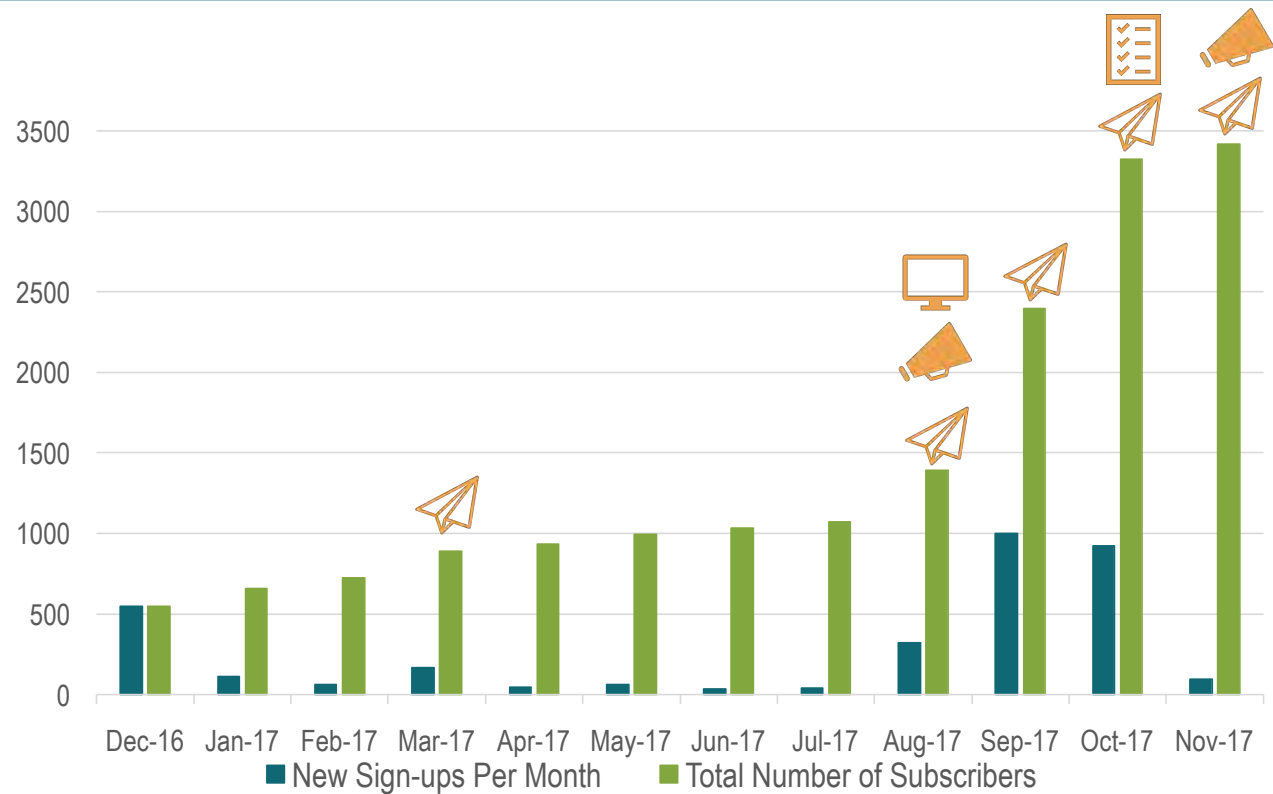
47%

PARTICIPANT SIGN-UP: STEPS 4, 5 AND 6

- **Step 1:** Volunteers sign-up on the interest list at the WA RUC website
- **Step 2:** Volunteers confirm email address to finalize sign-up on interest list.
- **Step 3:** Volunteers complete short interest survey (unique survey link emailed to each email address)
- **Step 4:** At least 2,000 drivers invited to participate
- **Step 5:** Selected participants asked to select a reporting method
- **Step 6:** Participants begin recording their miles
- **Step 7:** Through the pilot, participants will review mock invoices and complete quarterly surveys; participants' efforts will be recognized through gift cards.

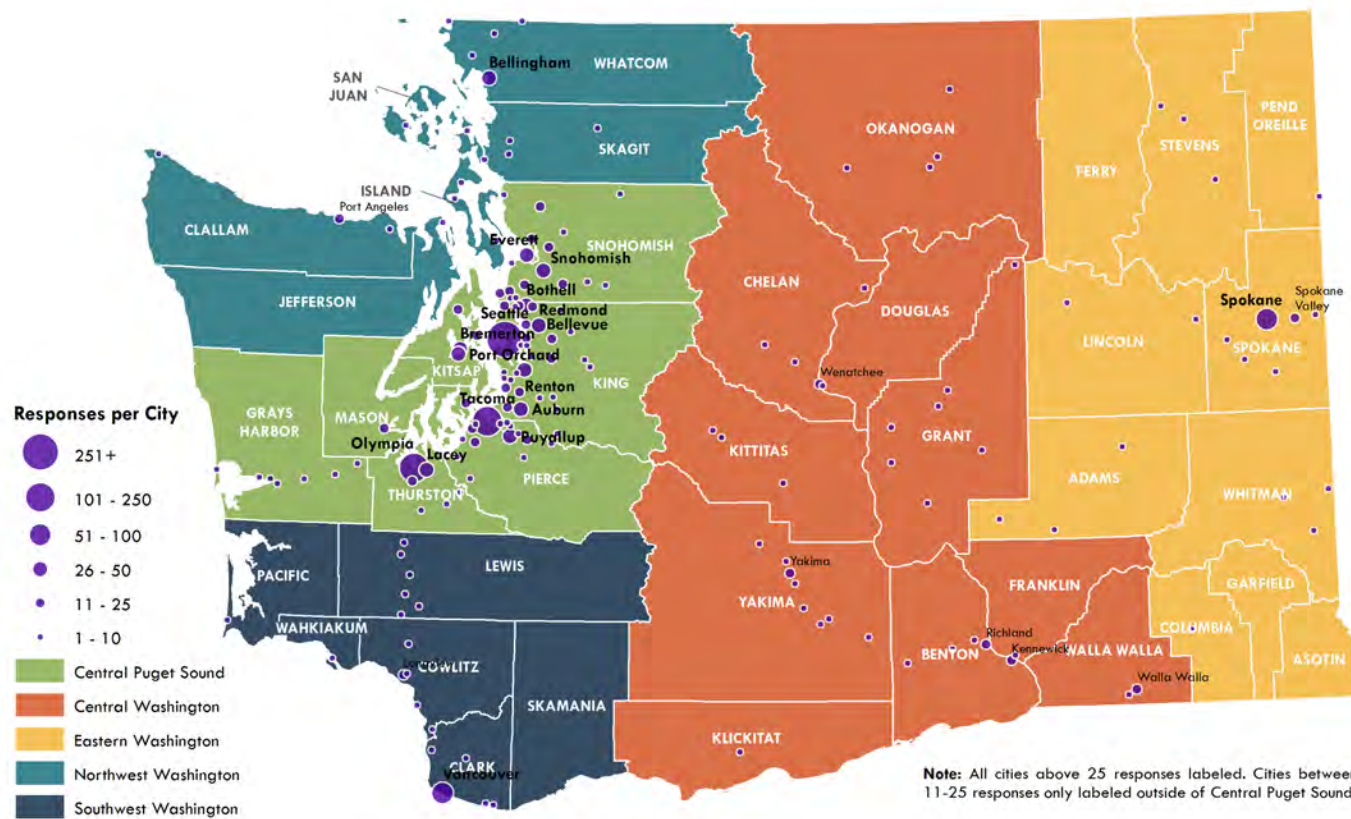
INTEREST LIST GROWTH – KEY DRIVER FOR PARTICIPANT POOL

-  E-newsletters sent
-  Website updated
-  Targeted media engagement
-  First demographic Survey sent



Data as of November 6, 2017

DEMOGRAPHIC SURVEY REGIONS AND RESULTS (N = 2,469)



Data as of November 6, 2017

INITIAL DEMOGRAPHIC SURVEY RESULTS

- **Total completed surveys: 2,469** (as of November 6)

Regions	Central Puget Sound		Northwest		Eastern		Southwest		Central	
Completed	1,771		138		204		147		192	
Female/Male	36%	63%	38%	62%	34%	65%	38%	62%	31%	68%

INITIAL DEMOGRAPHIC SURVEY RESULTS

Vehicle Type						
Electric or Plug-In Hybrid	Hybrid, no plugs	Motorcycle	Gas	Other		
230	175	17	2,046	1		
9%	7%	1%	83%	0%		

Data as of November 6, 2017

INITIAL DEMOGRAPHIC SURVEY RESULTS

Identified Race or Ethnicity							
African-American	Native American	Asian	Caucasian	Hispanic/Latino	Indian Sub-continent	Native Hawaiian	None/Prefer not to answer
34	48	96	2,189	68	14	12	121
1%	2%	4%	85%	3%	<1%	<1%	5%

Data as of November 6, 2017

INITIAL DEMOGRAPHIC SURVEY RESULTS

Income Distribution				
Less than \$30K	\$30K – \$60K	\$60K - \$120K	\$120K - \$200K	More than \$200K
125	477	1,079	509	166
5%	20%	46%	21%	7%

Data as of November 6, 2017

COMMUNICATIONS AND RECRUITMENT NEXT STEPS

- Continue analyzing results from communications activities and demographic survey to inform future strategies
- Target earned media in key areas and demographics to recruit additional potential participants
- Broaden online advertising campaign to target specific areas and demographics



ENROLLING TEST DRIVERS

Jeff Doyle,
Project Manager
D'Artagnan Consulting

SPECIAL PARTICIPANTS

- City of Surrey, BC
- Idaho drivers
- OReGO
- Electric vehicle drivers



CITY OF SURREY

- Approximately 200 drivers selected by the City of Surrey will be offered one RUC reporting method (automated distance charge) to test
- Special section of WA RUC web site will support ~200 drivers selected by the City of Surrey to participate in the pilot
- “Pitch packet” will be provided to Surrey to inform and recruit volunteers



IDAHO DRIVERS

- Idaho Department of Transportation will recruit about 50 drivers from areas along the ID-WA border to participate in the WA RUC pilot
- Special web page and packet of information will be provided to support the Idaho drivers
- Idaho drivers will have all mileage reporting options available to them, except in-person support for odometer readings (no DOL subagents in Idaho to support this)



OREGON'S OReGO RUC PROGRAM

- Purpose: identify a model for collecting RUC for interstate travel
- This is a “back-office” test of Oregon and Washington’s statutes and accounting rules for how to handle multistate revenue collection
- No more than 20 OReGO-enrolled drivers, and 20 WA RUC enrolled drivers
- Participants will be provided with a RUC account balance (real money) to pay for their interstate travel
- All issues (legal, accounting, operational) will be carefully documented to be resolved for any future RUC system



ELECTRIC VEHICLE DRIVERS

- Purpose: measure whether Washington plug-in electric vehicle drivers would prefer RUC over current system of flat-rate EV registration fees (\$100 + \$50 for fast-charging network)
- Seattle Electric Vehicle Association and Plug-in America are helping recruit drivers
- 24,624 PEVs registered in Washington (0.51% of passenger fleet)
- 230 PEV owners have signed up for pilot – 9% of sign-ups

ENROLLMENT INVITATION PROCESS

- Washington “recruits” are volunteers who have completed the demographic survey
- Invitations will be sent in batches to help ensure geographic and demographic diversity in the pilot test
- Policymakers will be invited, but will not be included in the count of 2,000 test drivers

ENROLLMENT INVITATION PROCESS

- Invitations will be sent in “batches” – with first invites sent to geographic areas that are under-represented in the volunteer pool – to ensure diverse representation of the state

EMAIL INVITATIONS

Email invitations will be sent starting **January 2, 2018**

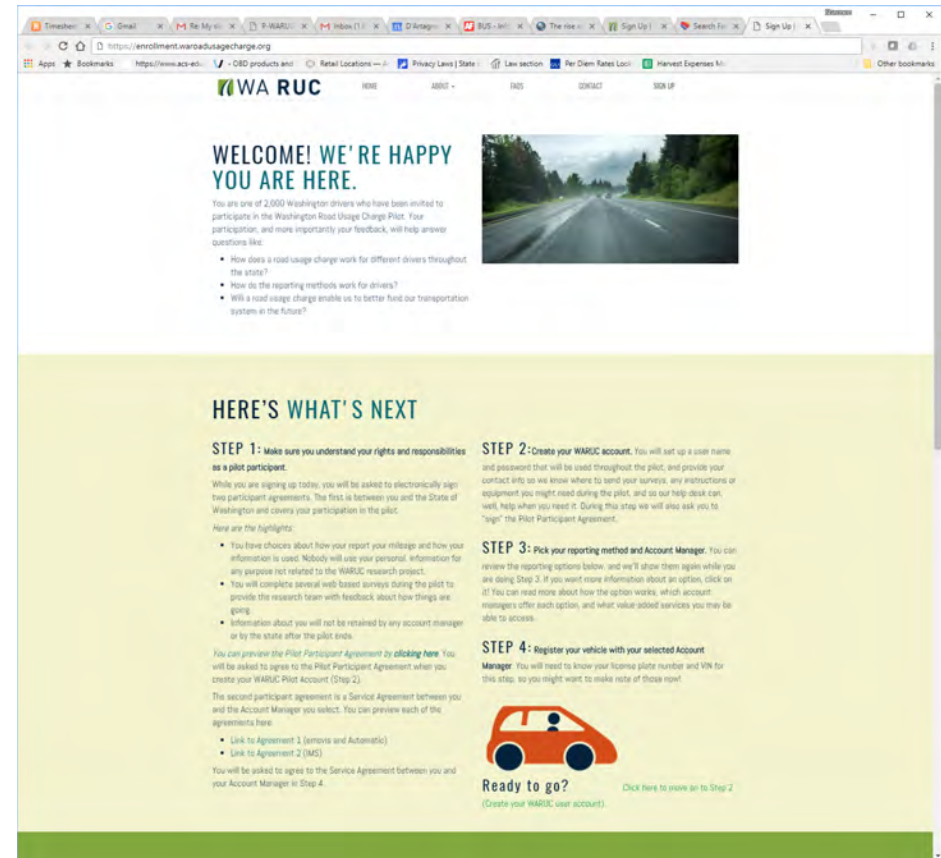
Will have unique **activation code** that only works in combination with the participant's email

Will contain a direct **link** to the enrollment web page



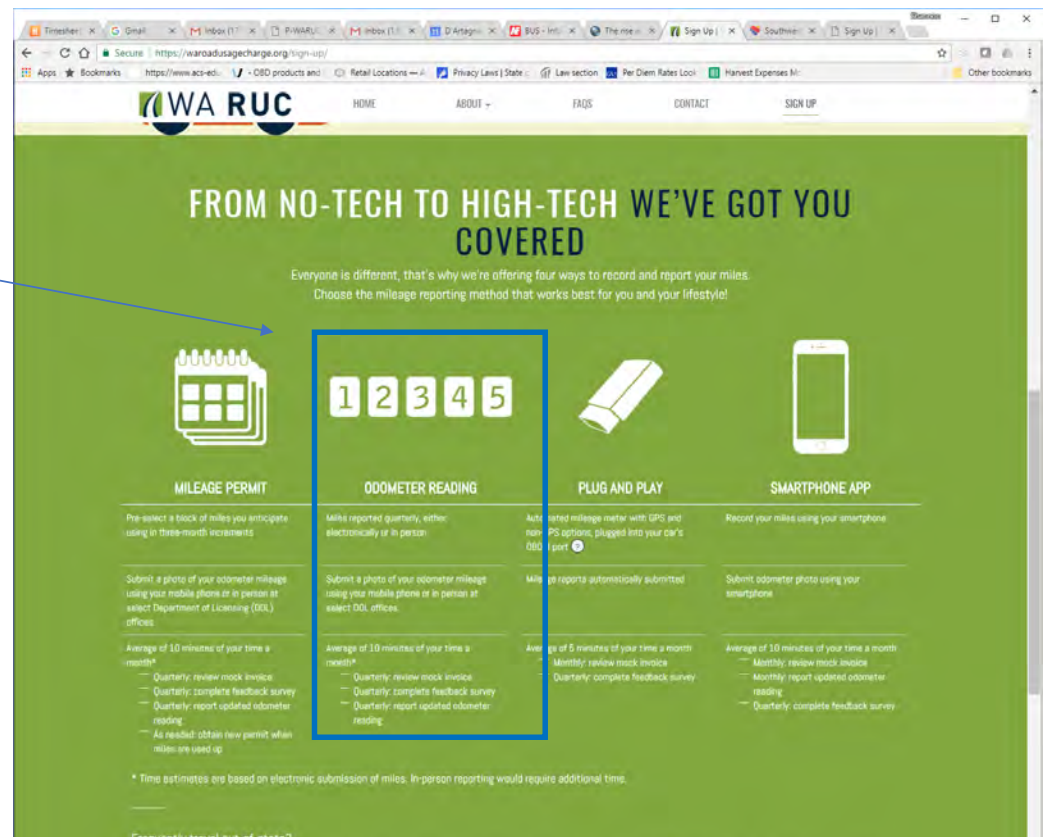
ENROLLMENT WELCOME PAGE

- Outlines enrollment steps
- Describes mileage reporting methods, with links to more detailed information



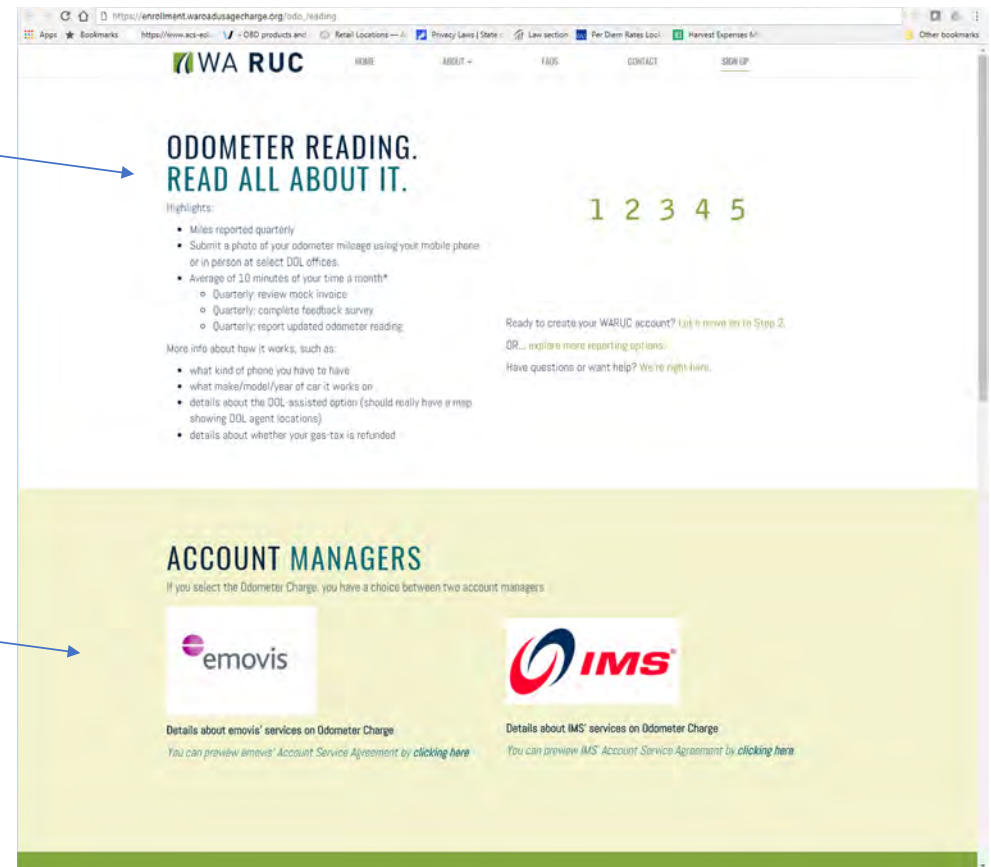
SELECT MILEAGE REPORTING METHOD

Invitees can click on a RUC option to get more detailed information about the different mileage reporting options, requirements, and services before deciding



DETAILED INFORMATION FOR EACH RUC OPTION

- More detail is available to learn about each RUC reporting option
- Any limitations will be noted (e.g., only works with certain vehicle types)
- More information about the Service Providers who support select RUC options



PARTICIPATION AGREEMENT & PRIVACY POLICY

Invitees must read and agree to the Participation Agreement before enrolling in the pilot project

Washington Road Usage Charge Pilot Project
Policies & Participation Agreement

Welcome to the Washington Road Usage Charge (WA RUC) Pilot Project, a [live research test](#) of a potential new way to pay for Washington's roadways.

The policies below will help ensure that the goals of the pilot project are met, and that your personal information is protected and shared only as you authorize.

Before agreeing to participate in this project, please take time to read these policies. Let us know if you have any [questions](#).

Our Policies

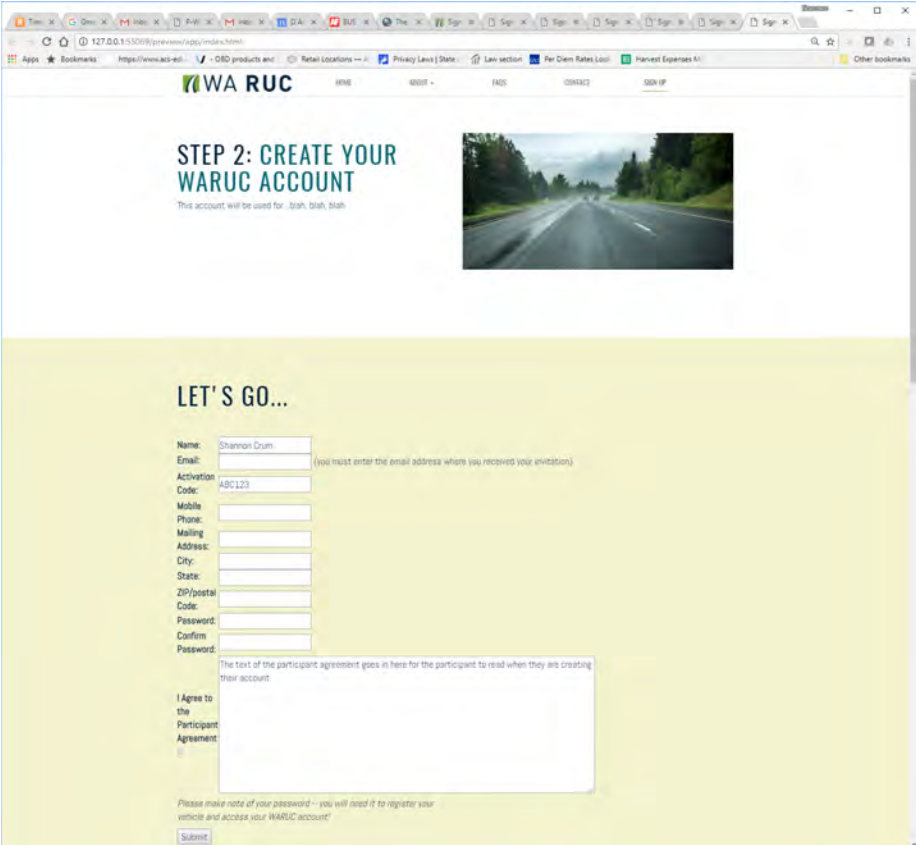
- Your participation.** Participants in the WA RUC Pilot Project are expected to participate for the full 12-month duration of the test. "Participation" requires setting up your account and enrolling your vehicle with a RUC Service Provider; choosing your preferred method of reporting the vehicle's driving mileage; responding to research questions sent to you periodically during the pilot project; and at the end of the test period, closing your account and returning any mileage reporting devices (if you selected a device as your preferred mileage reporting method).

Your successful completion of these tasks will entitle you to receive a gift card as a reward for your participation in this research project.

CREATING A WA RUC ACCOUNT

Easy account set-up:

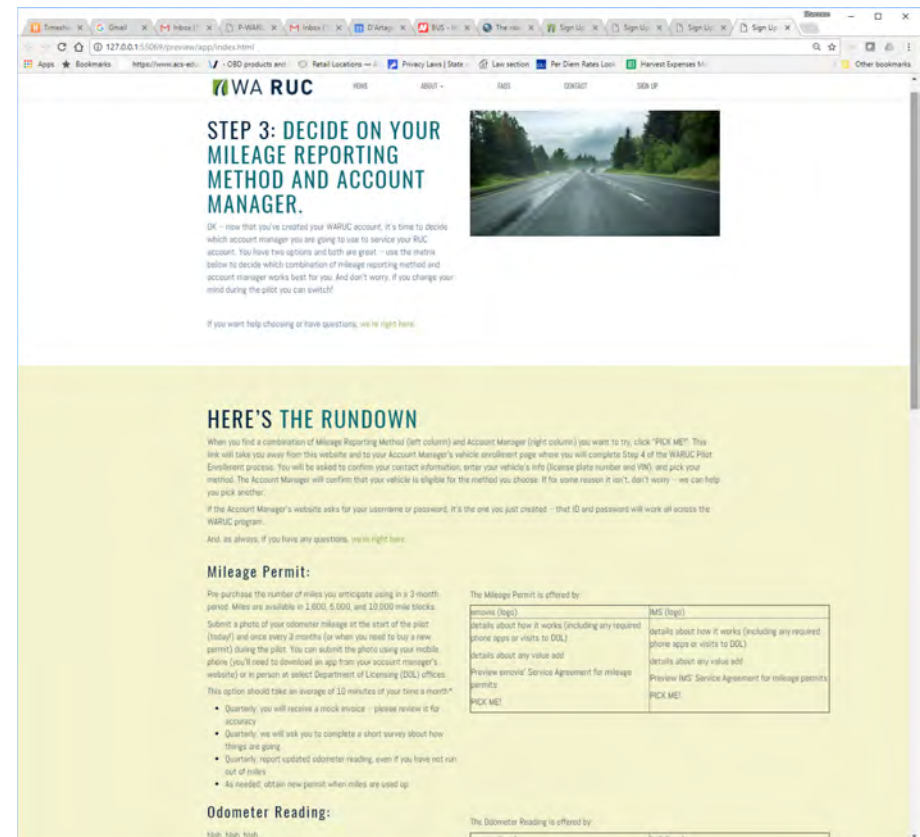
- Name and activation code are pre-populated
- “Single Sign On” will allow drivers to keep same account log-in even if they switch providers



The screenshot shows a web browser window displaying the WA RUC website. The page title is "STEP 2: CREATE YOUR WARUC ACCOUNT". Below the title, it says "This account will be used for: blah, blah, blah". There is a small image of a road. The main content area is a light green box with the heading "LET'S GO...". Below this heading are several input fields: Name (Shannon Drum), Email (with a note: "you must enter the email address where you received your invitation"), Activation Code (ABC123), Mobile Phone, Mailing Address, City, State, ZIP/postal Code, Password, and Confirm Password. Below the password fields is a checkbox for "I Agree to the Participant Agreement" and a "Submit" button. At the bottom, there is a note: "Please make note of your password - you will need it to register your vehicle and access your WARUC account".

SELECTING A RUC METHOD AND SERVICE PROVIDER

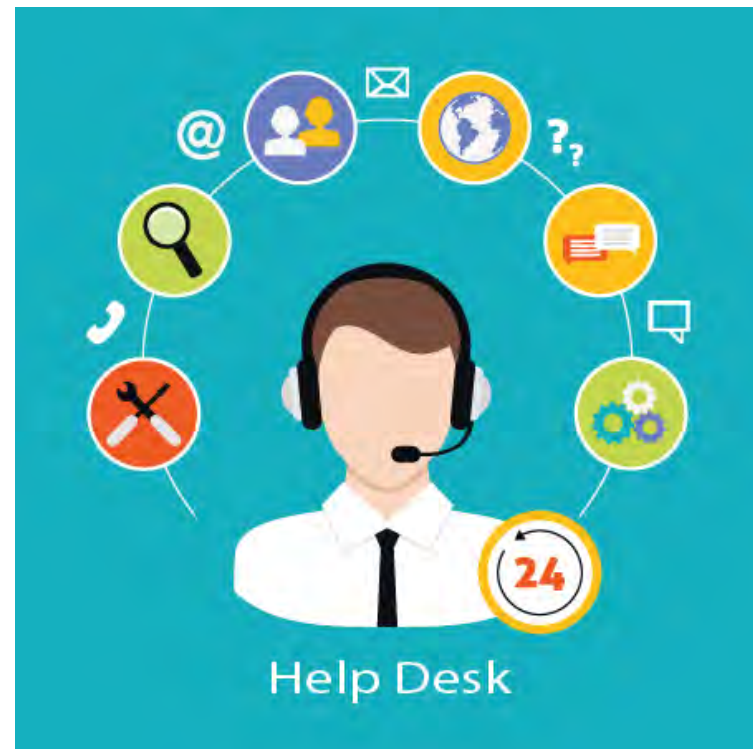
- Participant will choose from among the four available RUC reporting options
 - If both Service Providers support the chosen RUC option, Participant will need to select which Service Provider
- *Next stop: RUC Service Provider's web portal*



WA RUC PILOT PROJECT HELP DESK

Have questions or need help choosing a mileage reporting method or enrolling? Call the WA RUC live help desk:

1-833-WASH-RUC

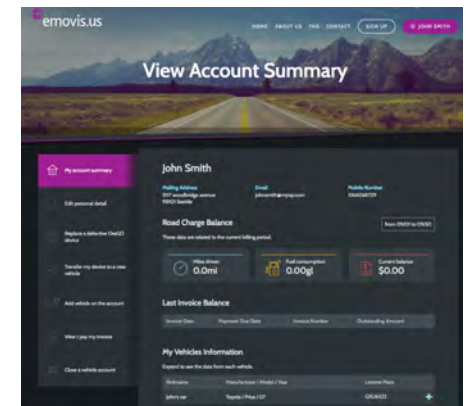


BACK-OFFICE DETOUR: WA RUC SERVICE PROVIDERS

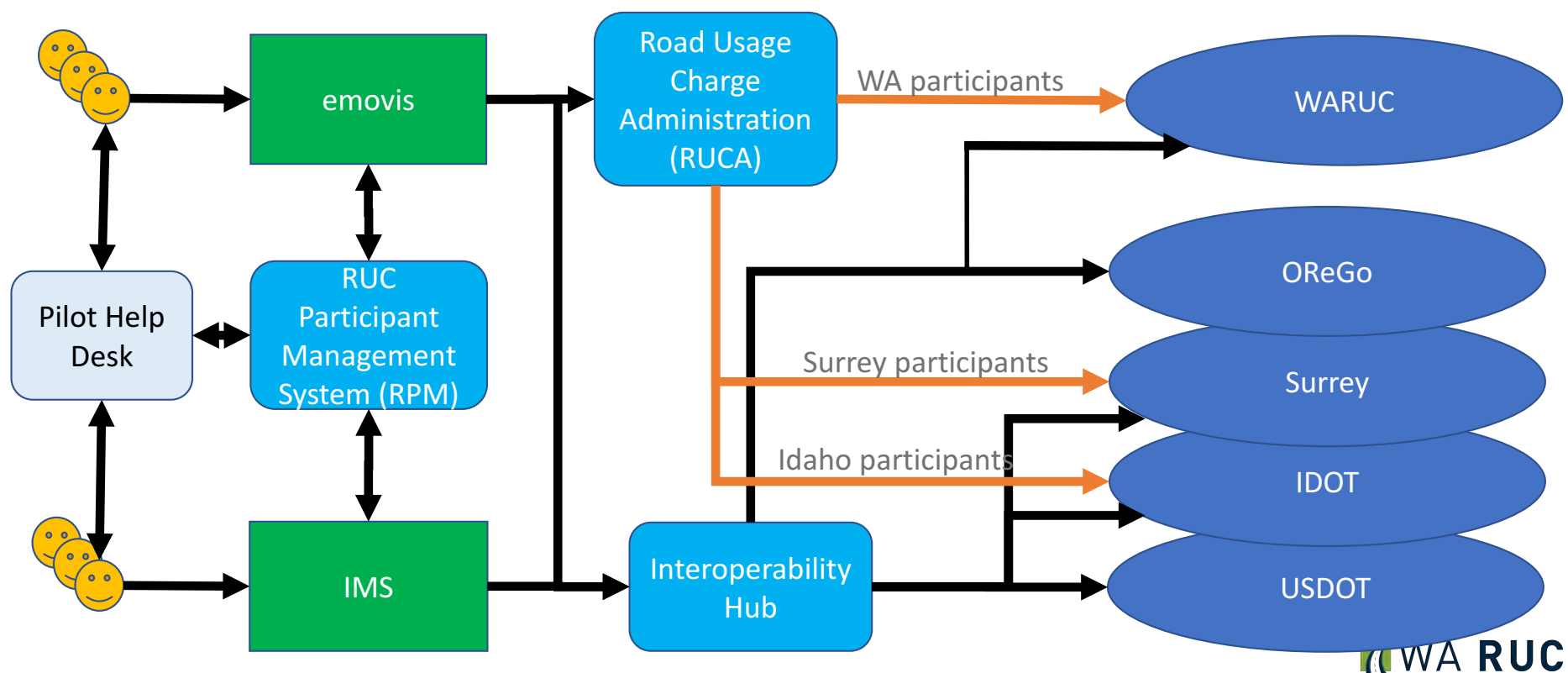
Matthew Dorfman,
Technology Lead,
D'Artagnan Consulting

SERVICE PROVIDERS

- Vendors providing RUC management services to participants
- Develop systems based on Open Standards
- Having 2 service providers simulates possible future Open Market
- May provide non-RUC value-added services to participants
- During enrollment, participants sign up on the main WARUC page, then jump to the RUC Service Provider's web portal
- Participants have the opportunity to switch service providers

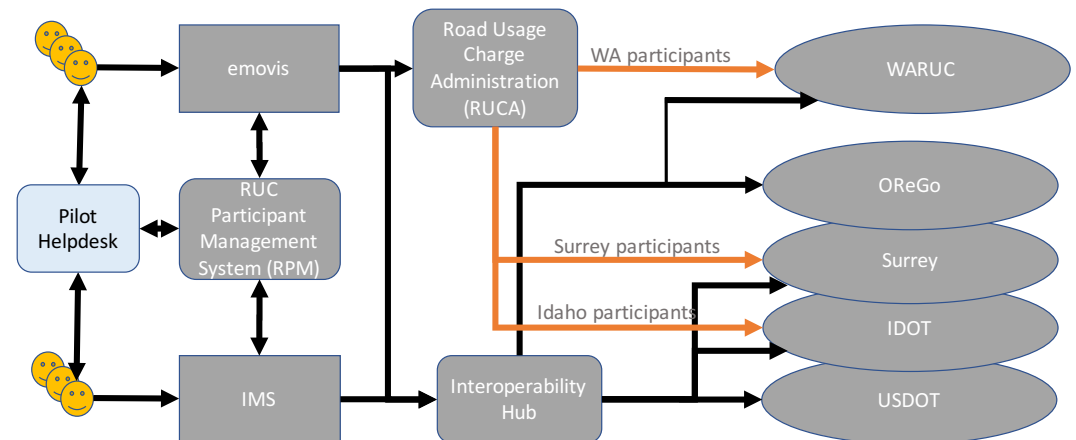


SYSTEM OVERVIEW



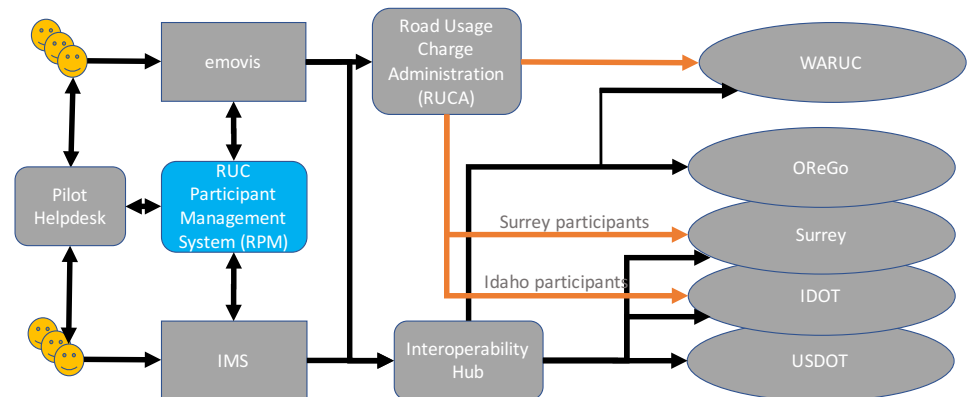
PILOT HELP DESK

- Supports participants by phone and email throughout pilot
- Intended for pilot-level questions—above the level of the service provider
- Main role is to help participants select operational concept and service provider



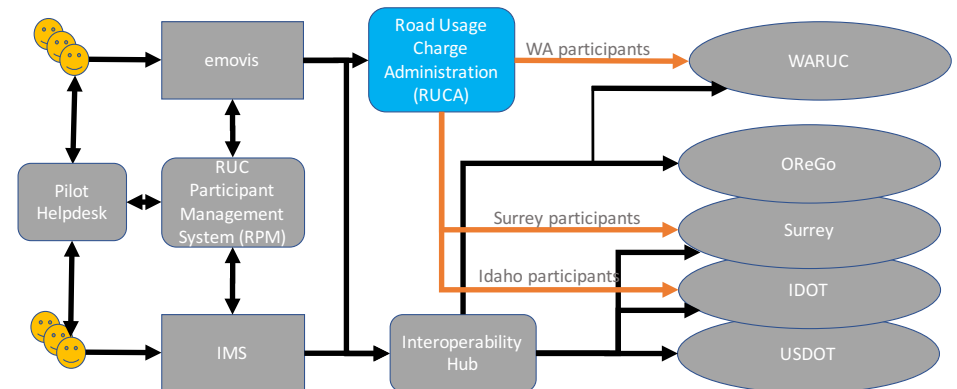
RPM (RUC Participant Management)

- Database for participant data (name, address, phone) and vehicle data (VIN, license plate)
- Available to Service Providers and Pilot Help Desk
- Allows for pilot-wide single sign on
- Secure PII storage & transmission



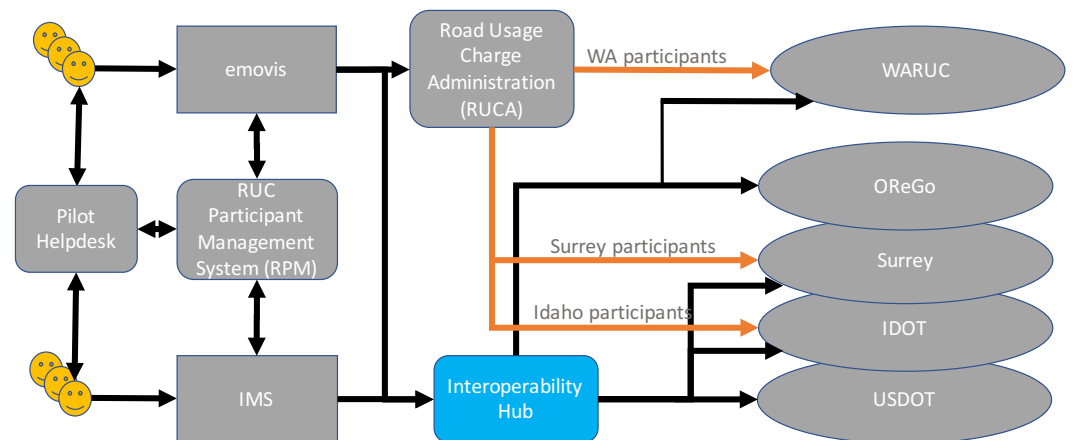
RUC ACCOUNTING (RUCA)

- Database containing participant monthly pilot travel reports
- Simulates State/Provincial RUC oversight agencies
- Participant data available to state for which participant is registered
- Verify participant compliance
- Secure PII storage & transmission



INTEROPERABILITY HUB

- Database containing aggregate monthly pilot travel reports (no PII)
- Supports monetary reconciliation between states (quarterly)
- Summary level data shared among participating states
- Secure storage/transmission, but contains no PII



INTRODUCTION OF SERVICE PROVIDERS



WA RUC Services for Pilot Participants		
IMS	emovis	OPERATIONAL CONCEPTS
✓	✓	Mileage Permit
✓	✓	Odometer Charge
✓	✓	Automated Distance Charge (location)
✓	✓	Automated Distance Charge (no location)
✓		Smartphone Location Application



EMOVIS

- Experience as Service Provider for OReGo
- Supports Mileage Permit, Odometer Charge, and Mileage Reporting Device with Location Data
 - Supports interface to DOL subagents
- Uses a commercially available mileage reporting device from Automatic



IMS

- Experience as Service Provider for OReGo and California Road Charge Pilot
- Supports all operational concepts
 - (no interface to DOL subagents)
- Provides own Mileage Reporting Device



VEHCON

- App and System developer
- Experience in California RCPP
- Provides
 - RPM
 - Interoperability Hub
 - RUCA
 - MVerity on Demand (process for verifying odometer readings)
 - Smartphone with location app



INTELLIGENT MECHATRONICS SYSTEMS (IMS)

Dr. Ben Miners
Project Manager,
IMS



WA RUC

Washington Road Usage Charge
Pilot Project – November 9, 2017



A-to-Be

Powered by  **Brisa**

Intelligent Mechatronic Systems (IMS)

Enhancing the utility, safety and environmental impact of transportation with innovative technology, services and analytics

18y

Automotive Quality
+ Security by Design

50M

US Vehicle
Audience

750K

Connected Driver
Activations

6.0B

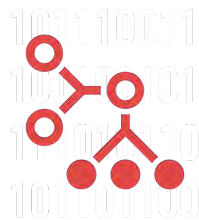
Data Points
Processed Daily

IMS – Connected Car Services and Analytics

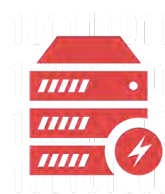
We deliver complete end-to-end systems to enable usage-based services for drivers, government programs, insurers, enterprises, and more...



Provide telematics tech to collect data & enable mobility services



Integrate, secure, & manage data from cars, drivers, and the IoT



Process & analyze available data to create value



Operate applications, services, & insights for authorized stakeholders



Deliver valuable and engaging services for vehicle owners and drivers

Telematics

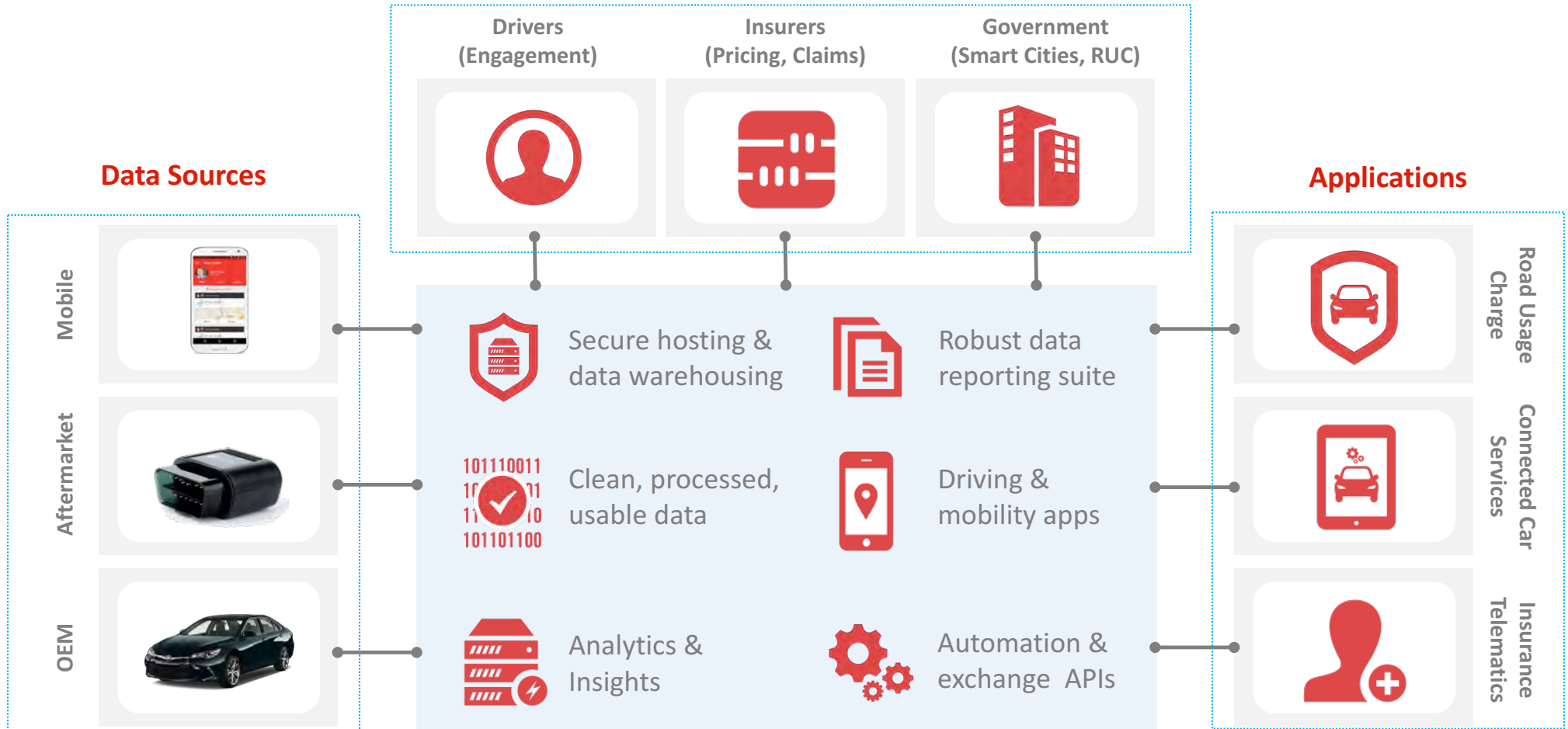
Informatics

Analytics

Applications

IMS – DriveSync® Platform

Flexible services and analytics platform designed for partnerships to benefit multiple stakeholders



IMS – Recent Programs

Select Insurance Telematics Clients



Integrated Service Partners



Government Programs & Partners





A-to-Be is a mobility technology company, designing and deploying advanced systems and payment platforms for transportation operators for 35 years.

We are about **transforming the ride**
— making it easier, safer, more sustainable and fulfilling.

And when people get to the end of it, it's not a **b**:
it's a **beyond**.



A-to-Be
Mobility-Beyond

A-to-Be

Powered by  **Brisa**



Selected achievements in tolling and back-office recent contracts



BOS
contract awarded

Southern Connector
Complete Tolling
Back Office
and Roadside



270
tolling self-service lanes

Illinois Tollway
Automatic Tolling
Payment Machines



12.5M
transactions per year

Northwest Parkway
Tolling Back Office and
All-Electronic roadside



-42%
peak hour congestion reduction

BNV mobility
Positive tolling
Back Office OBD-based



370M
transactions per year

Via Verde Portugal
Tolling Back Office and
All-Electronic roadside



17,000
average annual daily traffic

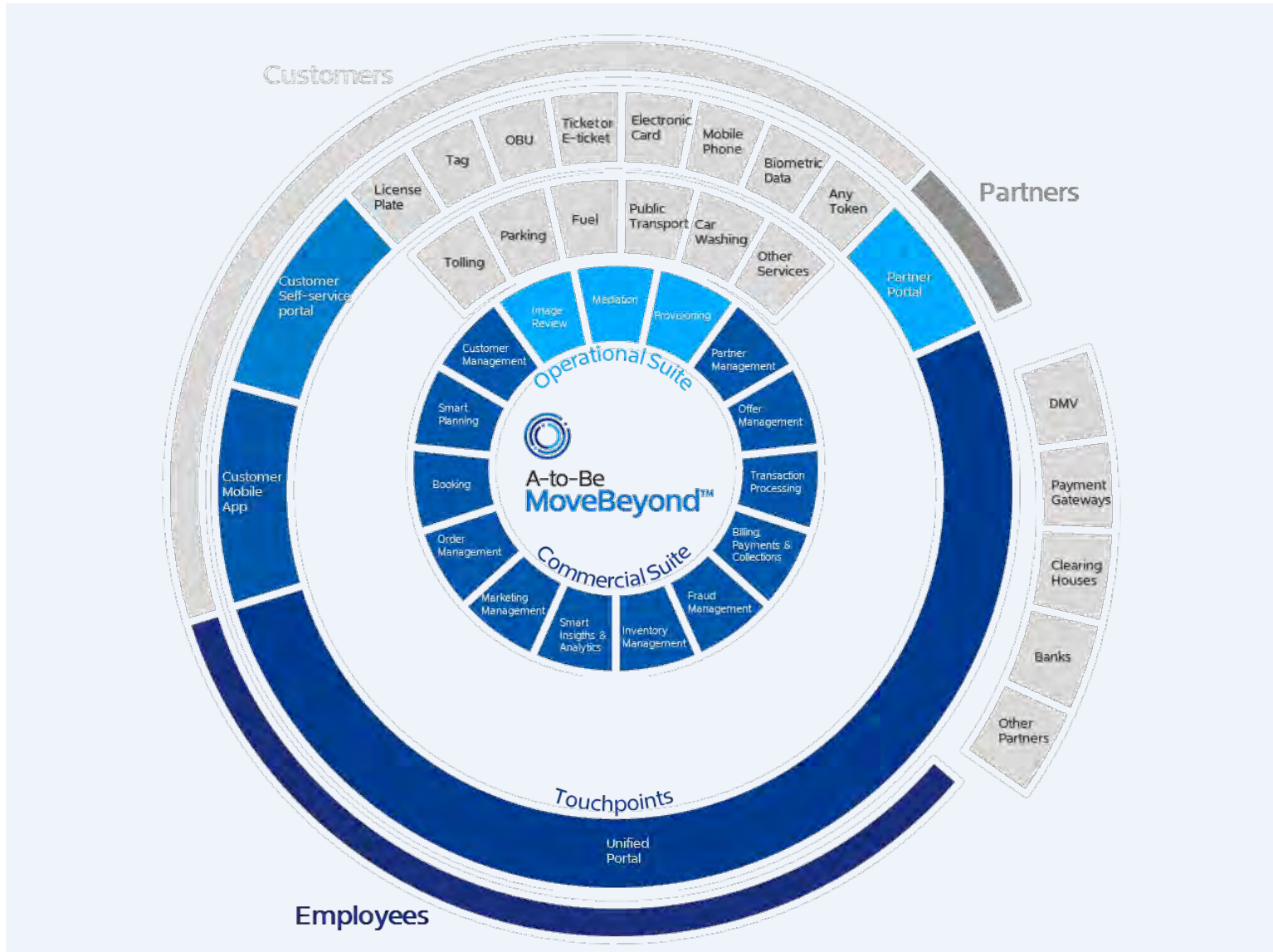
Pocahontas Parkway
Tolling Back Office





A-to-Be MoveBeyond™

The central tool for integrated mobility management





A vision for mobility
Seamless experience across all-modes of transportation



A-to-Be® back office for central mobility management.

// A-to-Be MoveBeyond™ is an advanced mobility platform built with the latest state-of-the-art technology to process large volumes of data and scale in a linear fashion that is, at the same time, highly configurable, feature rich and easy to use. //



Central mobility management for all integrated services



Parking



Public Transport




Fueling



Commuting services



Tolling



“The **combined** expertise that IMS and A-to-Be bring to road usage charge programs will deliver a **seamless** experience to Washington RUC participants.”



Seamless - Unified Participant Experience

DriveSync for Washington Road Usage Charge Pilot Project



- Dedicated & branded app
- Common interface
- Integrated driver services
- Enhanced services with OBD-II



Mobile (Location or Non-Location – Odometer verification)



OBD-II (No GPS)

IMS Proprietary & Confidential



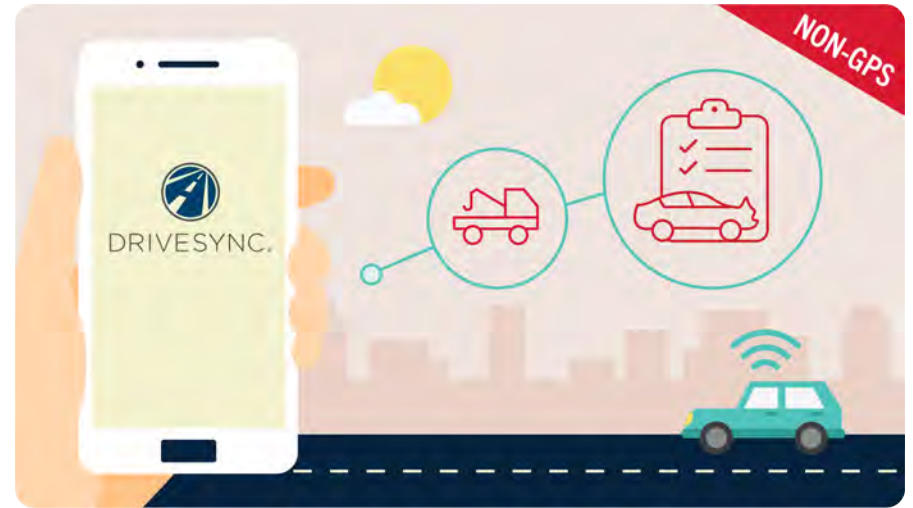
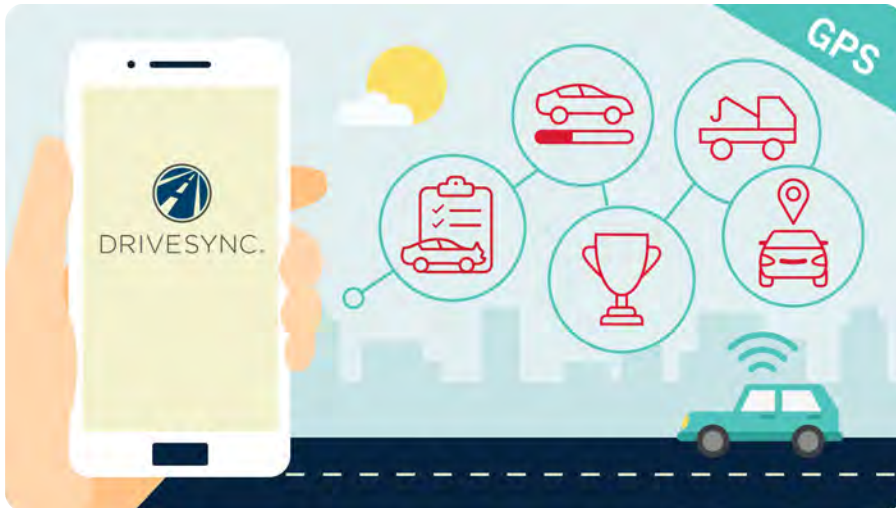
OBD-II (GPS)



Odometer Charge or Mileage Permit

Multiple Available Operational Concept Choices

(Selected Examples)

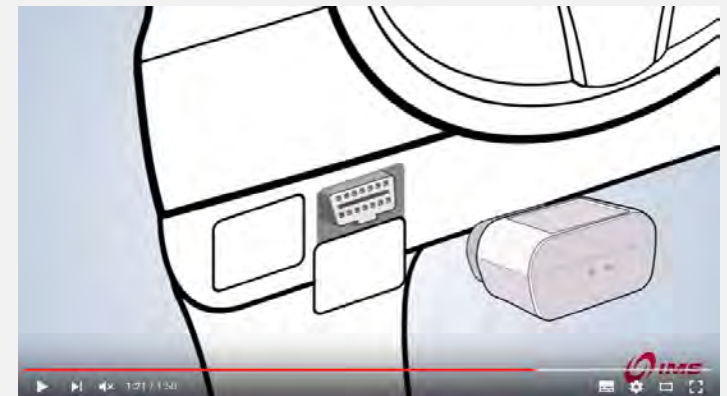


Simple Self-Install

(Participants using automated methods)

SEAMLESS PARTICIPATION

- Streamlined enrollment wizard and instant compatibility validation
- Mature Canada and US-based logistics with convenient packaging
- Self-installation
- Automated invoice payments
- Review detailed daily mileage information
- Manage multiple vehicles within the same account



Online Interface Overview

Registration Wizard guides users through the sign-up process step by step



Your Vehicle

Vehicle Identification Number (VIN)

Vehicle Identification Number (VIN)

VIN	Vehicle Nickname	Odometer Reading	License Plate
51352463045	My Car	54124	AAAAA

Make: Trim:

Model: Trim / Engine type not listed.

Year: Fuel Type: Mileage: Weight:

Reminders Preferences

Phone

Email

Self-Service portal provides users with a complete view of their account including invoices, payments, vehicles and usage.

IMS Washington

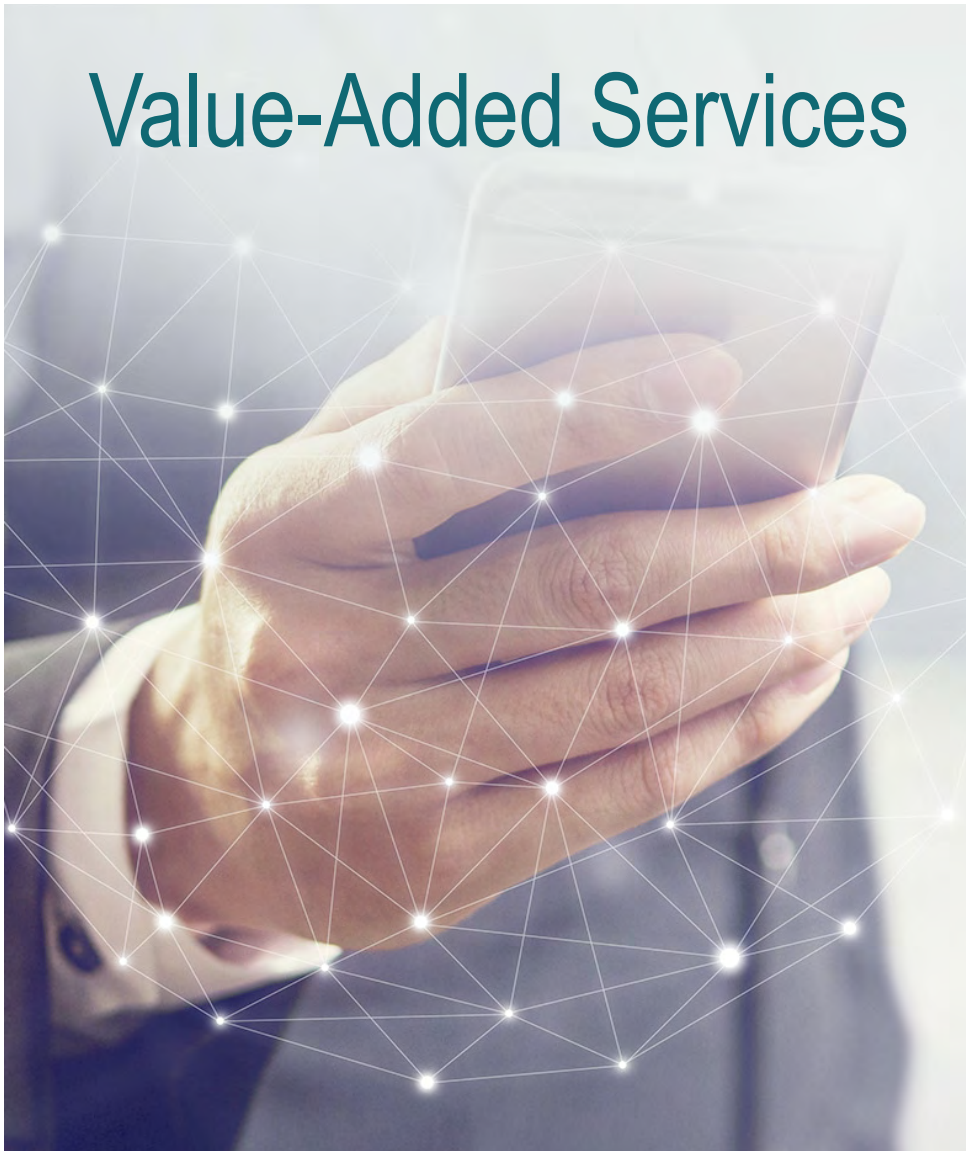
Vehicles

2 of 2 Records

VIN	Vehicle Name	License Plate	Make
1FADP3N26DL168390	My Car	AAAAAAA	Ford
5FPYK1F5XEB051821	My Other Car	BbBBBBBBB	Honda

- Home
- Vehicles
- Wallet
- Payment Methods
- Invoices
- Payments
- Usage
- Conversations

Value-Added Services



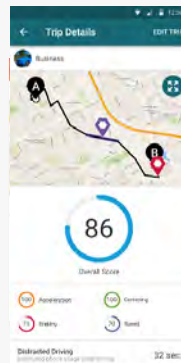
Engaging, connected driving app for participants

Personalized mobile experience and connected car apps that keep participants engaged while providing useful tools to improve driving habits and access to convenient on-demand services



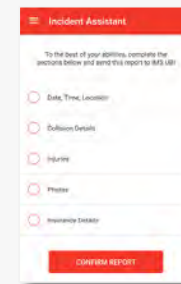
Personalized App

- Unified experience
- Android and iPhone (iOS)
- Intuitive user experience
- Flexible set of modules
- Customized for partners



Trip IQ

- Driving & trip scores
- Detailed trip log
- Route map
- Visualized events
- Coaching tips
- Trip logbook



Incident Assistant

- Easy to follow experience
- Capture collision details
- Take vehicle damage photos
- Capture license and insurance details
- Initiate claims process



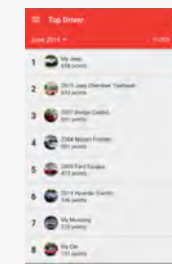
Vehicle Health

- Integrated with RepairPal
- DTC interpretation
- Repair cost estimates
- Referral to local, certified repair shops



Roadside Assistance

- Urgent.ly on-demand roadside service integrated
- App + service provider API
- Use app to request help



Additional App Features

- Secondary driver
- Leaderboard
- Badge/incentive framework
- Collision reporting
- Find My Car

Privacy by Design + End-to-End Security = Participant Acceptance



**Consent
Management**



Privacy By Design



Data Protection



**Designed for
Partnerships**










**Secure and Scalable
Infrastructure**

IMS with A-to-Be: Powering the road ahead.



Powered by  **Brisa**

Privacy by Design + End-to-End Security = Participant Acceptance

<h2>Analytics</h2> 	<h2>Research & Development</h2> 	<h2>Design & Production</h2> 	<h2>Intelligent Application & UI Development</h2> 	<h2>Fully Managed Secure IT Infrastructure</h2> 	<h2>Global Support and Logistics</h2> 	<h2>Systems Integration</h2> 
<ul style="list-style-type: none">▪ IMS data integrity and data intelligence▪ Data and scoring derivation▪ Open standards and flexible integration▪ Enrich insights across multiple data sources with contextual and ambient information	<ul style="list-style-type: none">▪ Focus on continuous innovation▪ Extensive global 195+ patent portfolio▪ Extensive in-house graduate expertise▪ Machine learning, geospatial analytics, and intuitive human interaction	<ul style="list-style-type: none">▪ System optimized embedded software▪ ISO 9000 / 14001 compliant▪ Privacy by design	<ul style="list-style-type: none">▪ High-value applications for enterprise customers and end-users▪ Flexible GUI design with co-branding options▪ Mobile telematics applications and interfaces	<ul style="list-style-type: none">▪ Scalable, redundant, private cloud architecture▪ Financial-grade end-to-end security▪ Private and public cloud options▪ At rest / in-transit AES-256 encryption	<ul style="list-style-type: none">▪ Multilingual team▪ 7/365 day support▪ Tier-1, Tier-2, and Tier-3▪ Supply chain management with scalable 3PL	<ul style="list-style-type: none">▪ Integrated management of wireless network connectivity▪ Seamless integration with external applications and IT infrastructure

EMOVIS

Frederic Charlier,
CEO, ClearRoad

Mahrokh Arefi
U.S. CEO & Head of Global Business Development,
emovis



WARUC STEERING COMMITTEE

Frederic Charlier
CEO ClearRoad

Mahrokh Arefi; P.E./P.Eng
US CEO & Head of Global Business Development



About emovis



➤ **emovis** is the leading service delivery and technology arm of Abertis in the global markets for all **electronic tolling** and **smart mobility solutions**.

Our vision

We seek to offer **safer, faster, more convenient** and more **comfortable** travel for road users on highways around the globe to foster sustainable mobility.

The company is 100% owned by



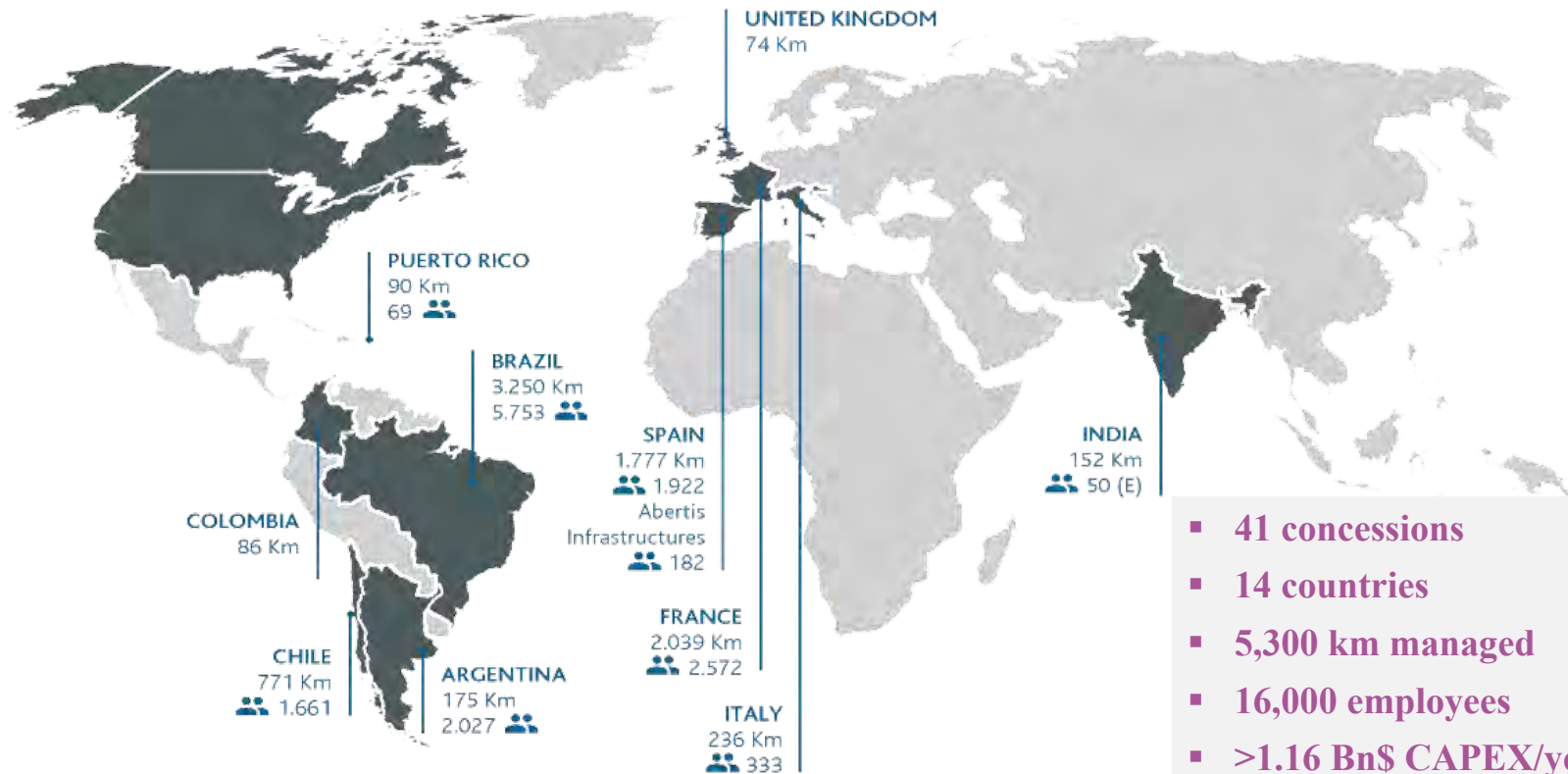
the world's leader in highway concessions with more than 5,200 miles of roads under direct management.



emovis facts

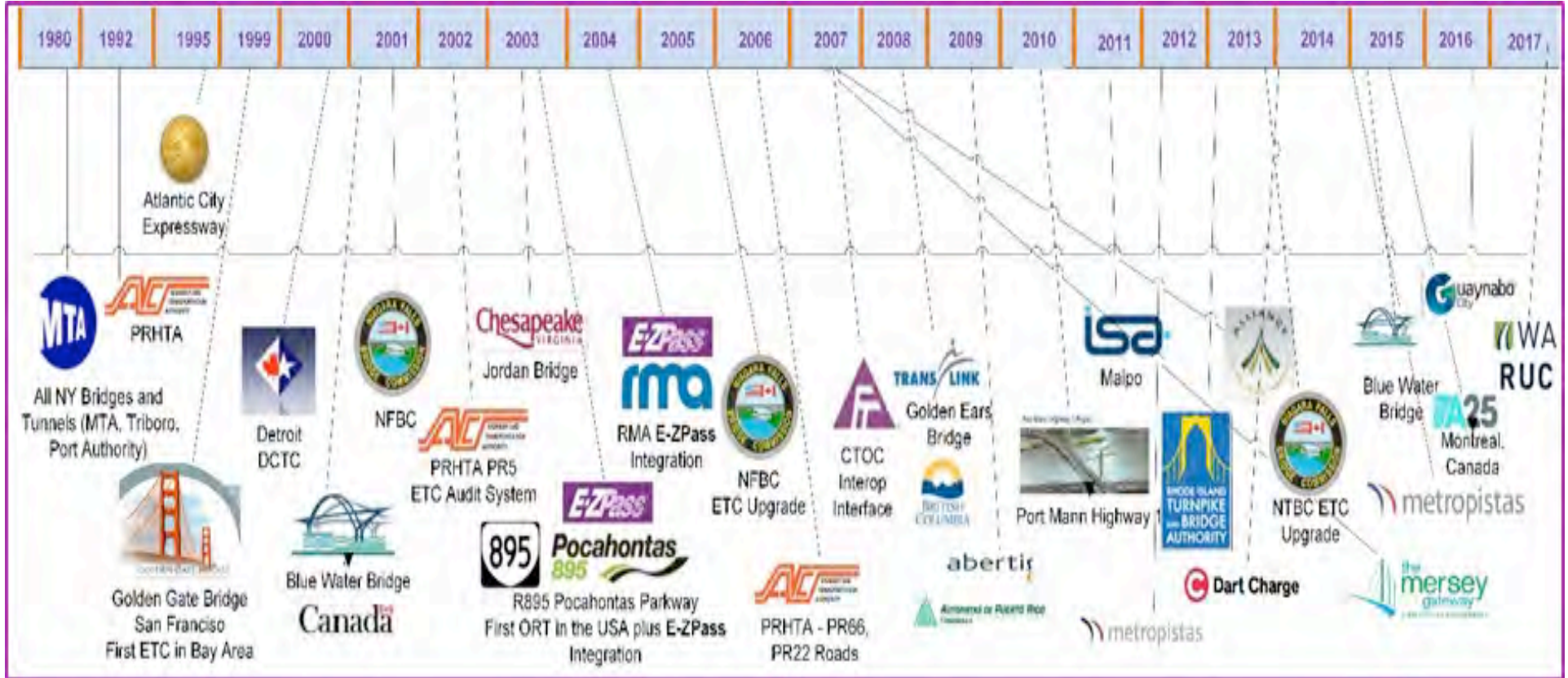
- ✓ active in the U.S. for more than **40 years**
- ✓ integrates solutions for more than **7,000 equipped lanes**
- ✓ employs more than **800 tolling professionals**
- ✓ process more than **350 million** toll transactions each year
- ✓ serve **4.2 million toll customers** each year

Abertis: Global Toll Road Operator

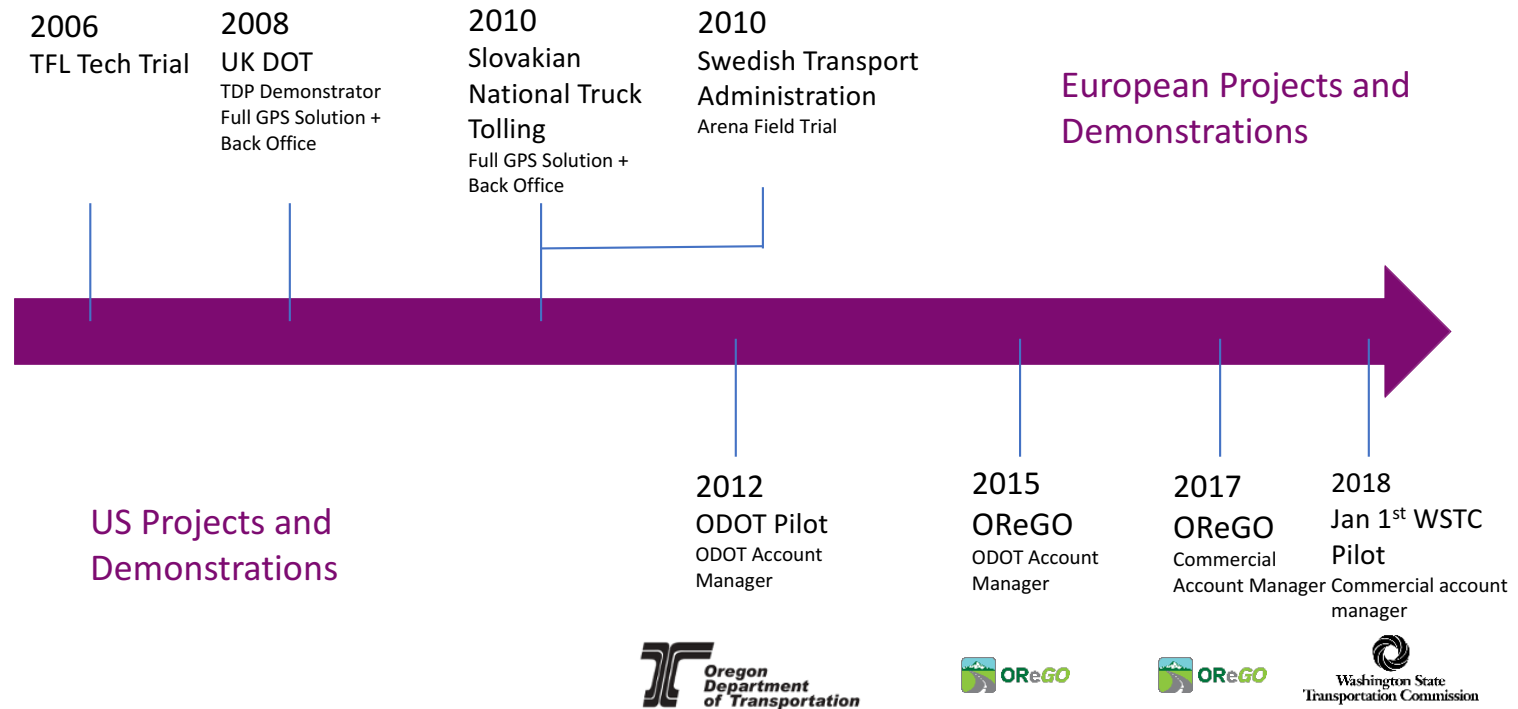


- 41 concessions
- 14 countries
- 5,300 km managed
- 16,000 employees
- >1.16 Bn\$ CAPEX/yearly
- 29 Bn\$ assets managed

Long History in North America



Road User Charging: Our Experience

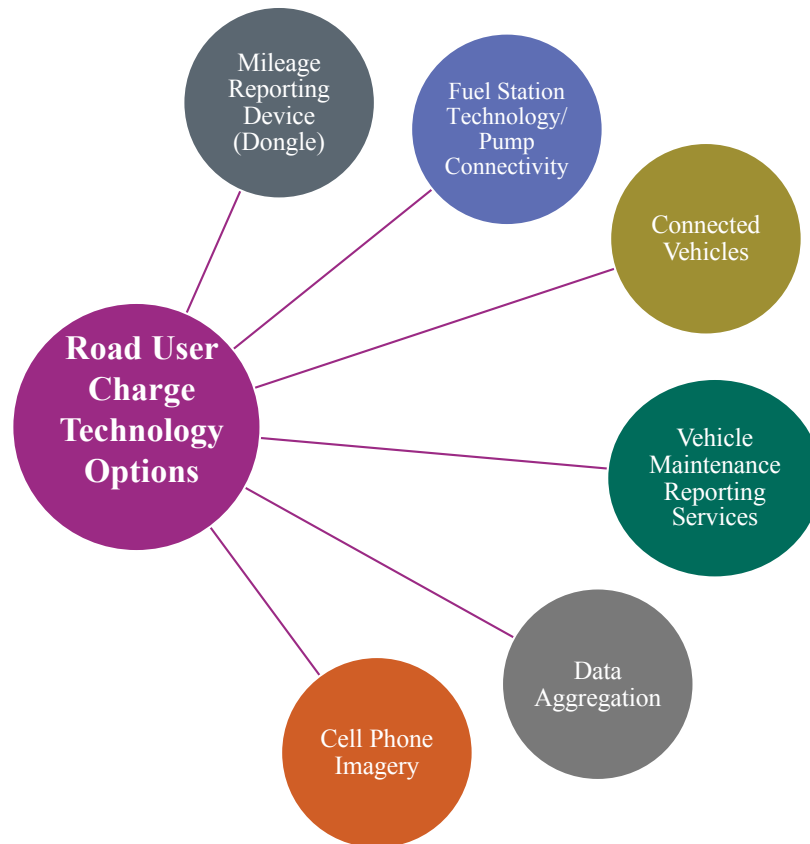


We have a long history of RUC

Road User Focused Models

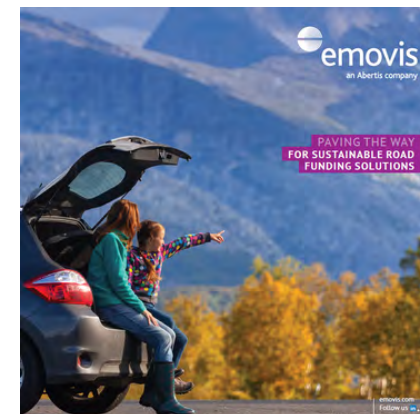


Providing more options to users



Unique features

- ⊗ Collecting road tax via **Private and Public Service** at the same time
- ⊗ **Multiple vendors approach** competing to attract motorists with value added services
- ⊗ **Universal Service Operator** to ensure equity and fairness
- ⊗ **Flat tax**: same rate for all users irrespective of the car models



The Future of Road Funding - Trends



- ⊗ Innovation On All Fronts: Mobile Apps, Blockchain, Intelligent Roads, Connected Cars, Autonomous vehicles: emergence of **new business models**
- ⊗ Rise of **Mobility as a Service**
 - *Shift from ownership to usage based*
 - *Impacts to Infrastructure Managers To Meet New Road User's Needs*

Mobility of people and goods are more crucial than ever before: see our white paper report



WARUC Project Partners



Our mission is to bridge road charging applications with vehicle data sources and technologies

New York City,
NY



We provide state & federal DOTs, auto insurers & fleets with critical “visually verified” vehicle data

Atlanta, GA



Our mission is to empower drivers with knowledge about themselves and their cars so they can be safer and drive smarter.

San Francisco,
CA

Our Strategy:

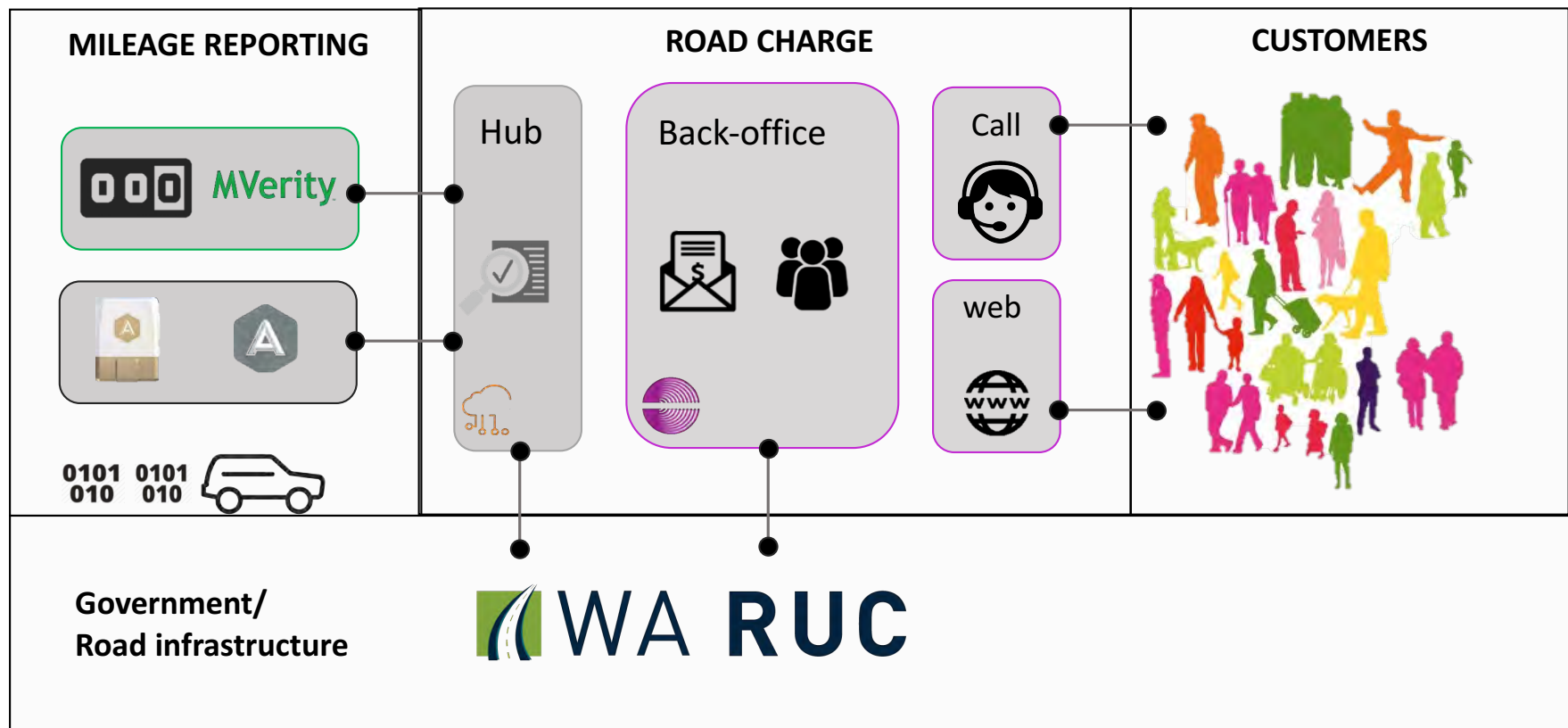
- ⊗ Focus on the customer experience & learning for **all** parties
- ⊗ Leveraging the best companies in the market
- ⊗ Provide flexible solutions to our Clients



EMOVIS SOLUTION FOR THE WARUC PROJECT



Solution Overview

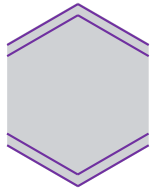


Road Usage Charge Back-Office



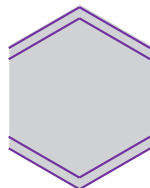
Full Back-Office ERP

- Billing
- Business intelligence
- Account Management
- Customer Management
- Logistics
- Finance
- E-mailing



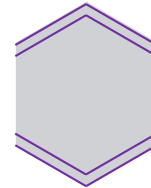
Interoperability

- Interop. reporting
- State map matching
- Multi-currency



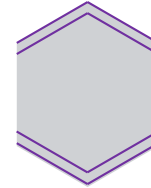
Customization

- Business rules
- Templates
- Content



Auditability & Compliance

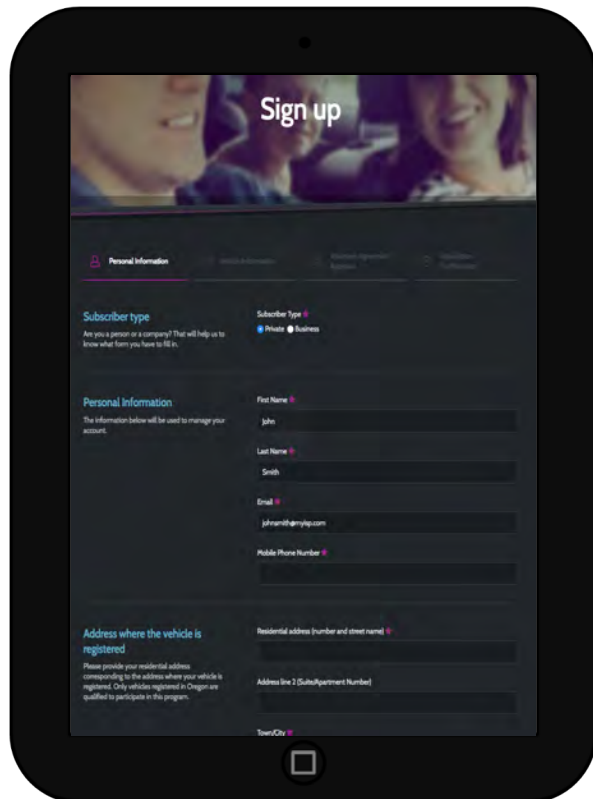
- PCI-DSS
- PII / Data segregation
- Ad-hoc reports



Security & Reliability

- Encryption
- Redundancy
- Access profile management

Unified RUC Portal for Participants



Online Dashboard

> Self-care Account management

- Review Account balance
- View invoice
- Update Participant's info
- Manage vehicle(s)

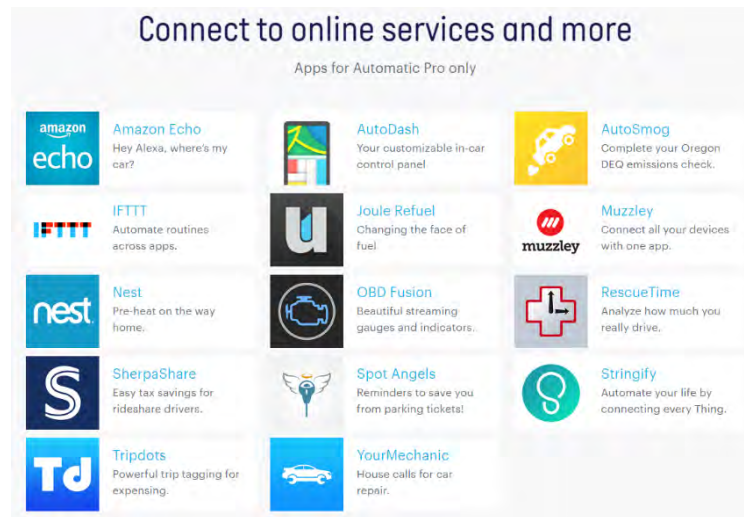
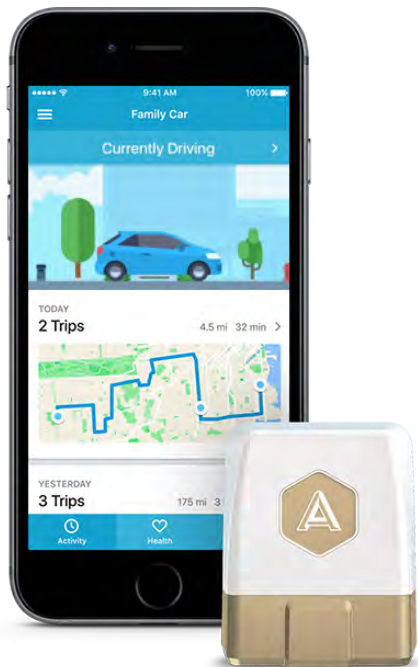
> User friendly and secure interface



Participant's help desk

- RUC dedicated team
- U.S. based call center

Connected Car Experience – Automated Concept



Unlocking Data in the Vehicle –

taking a user centric view.... *Additional Services offered to participants....*

User Privacy

- Ask for user consent
- Right for permanent data deletion

Odometer Reading Capture – Manual Concepts



Simple And Universal Solution

- No hardware to install
- No smartphone app to download
- No tracking
- Accessible to people without cellphones

> Odometer request every 3 months



No cellphone? No problem!

Participants can report their odometer in several DOL locations in WA

BACK-OFFICE DETOUR: IN-PERSON SUPPORT FOR MILEAGE PERMIT & ODOMETER CHARGE

Jeff Doyle,
Project Manager
D'Artagnan Consulting

IN-PERSON SUPPORT FOR TWO METHODS OF MILEAGE REPORTING

Purpose: *Develop and test a RUC method for drivers who don't have or prefer to use their mobile phone or automated device*

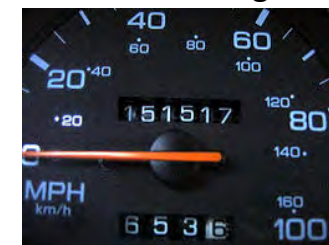
Pilot objectives:

- Utilize existing vehicle licensing offices (DOL's subagents) to provide the service
- Gather feedback from participants on the process
- Gather feedback from DOL subagents on the process
- Collect data to gauge cost of administering the system

Mileage Permit



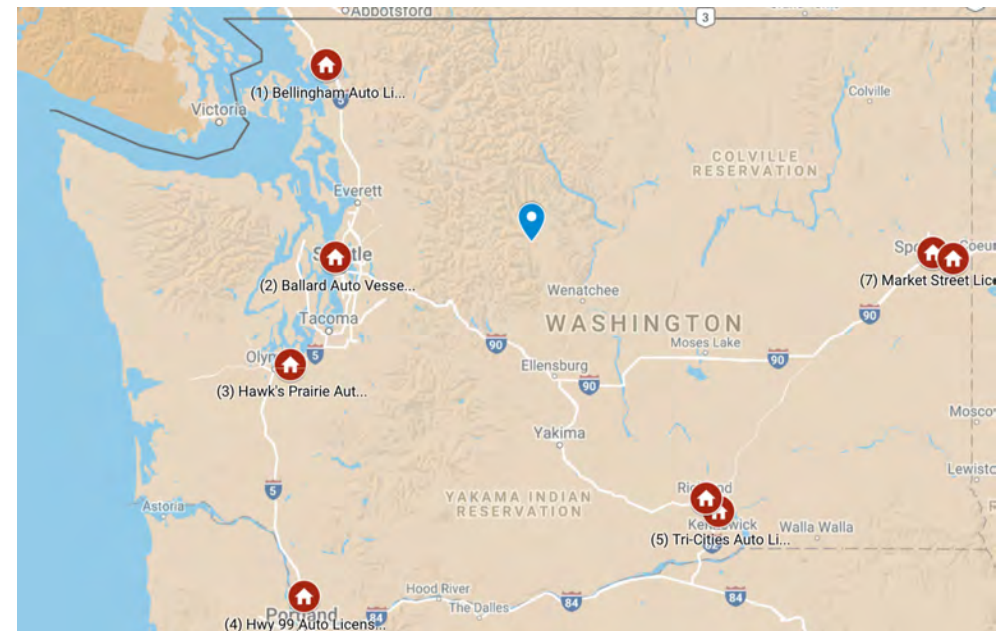
Odometer Charge



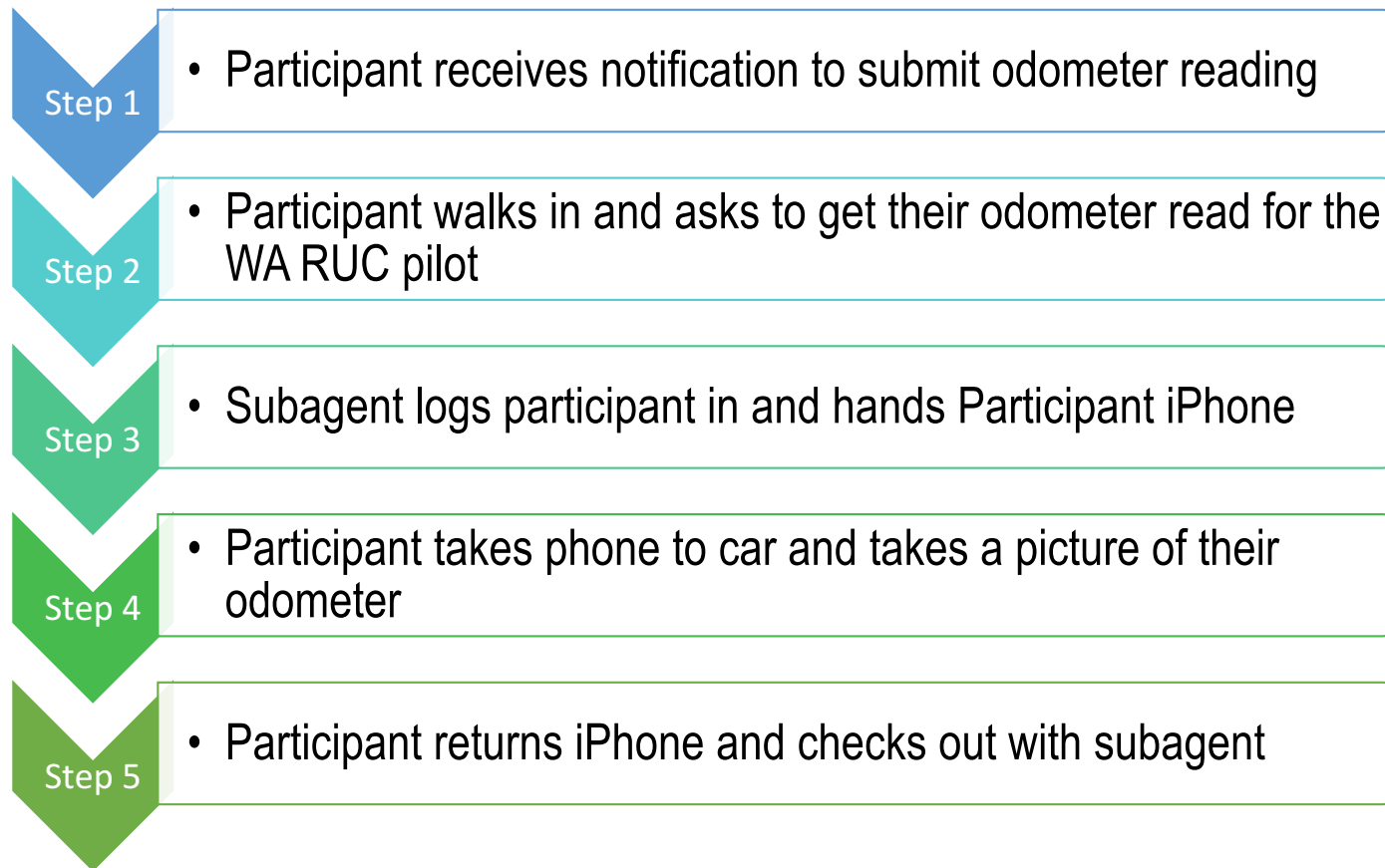
BASIC NETWORK OF SUBAGENT SUPPORT

Recruit at least one subagent per pilot region. Potential locations:

- Bellingham
- Seattle (more than 1 location)
- Olympia/Lacey
- Vancouver
- Tri-Cities (no subagency in Walla Walla)
- Spokane
- Spokane Valley (near ID border)

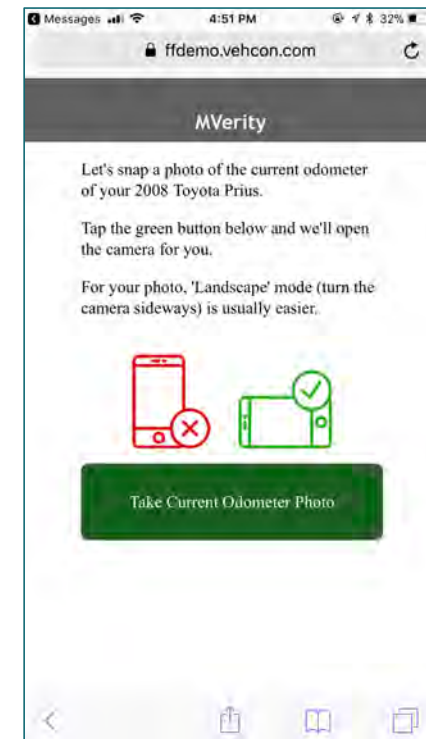
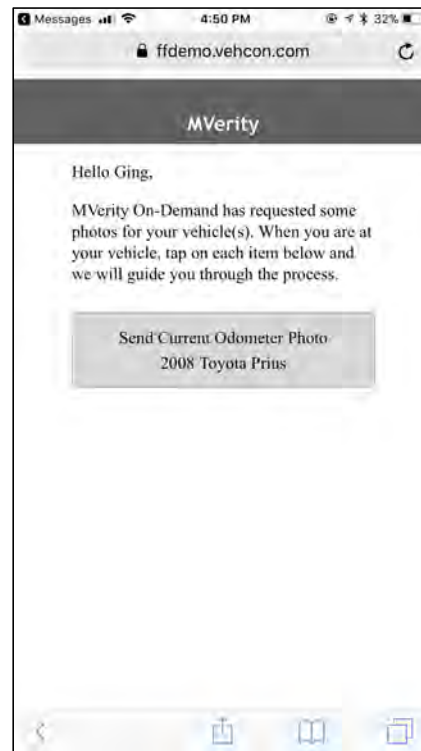


HOW IT WORKS



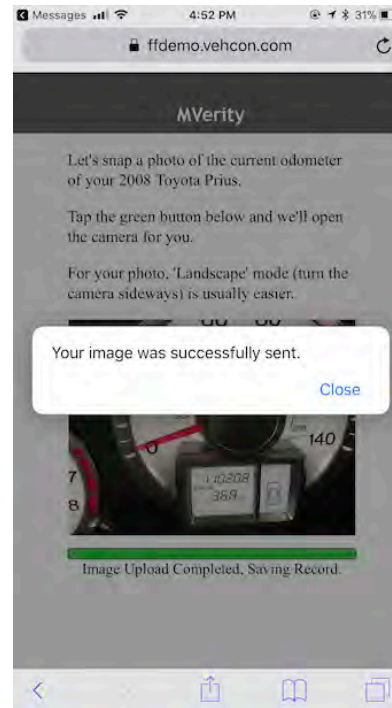
SUBAGENTS WILL PREPARE THE PHONE TO TAKE THE ODOMETER PHOTO

- Customized version of web app for the subagent's functionality in the WA RUC Pilot
- Subagent will be required to enter their subagent ID first time used



PARTICIPANT TAKES A PHOTO OF THEIR ODOMETER

- Once photo has been sent and verified, Participant is notified of successful WA RUC reporting



LUNCH BREAK

LIVE DEMO: MILEAGE REPORTING BY MOBILE PHONE

Fred Blumer,
CEO
Vehcon, Inc.

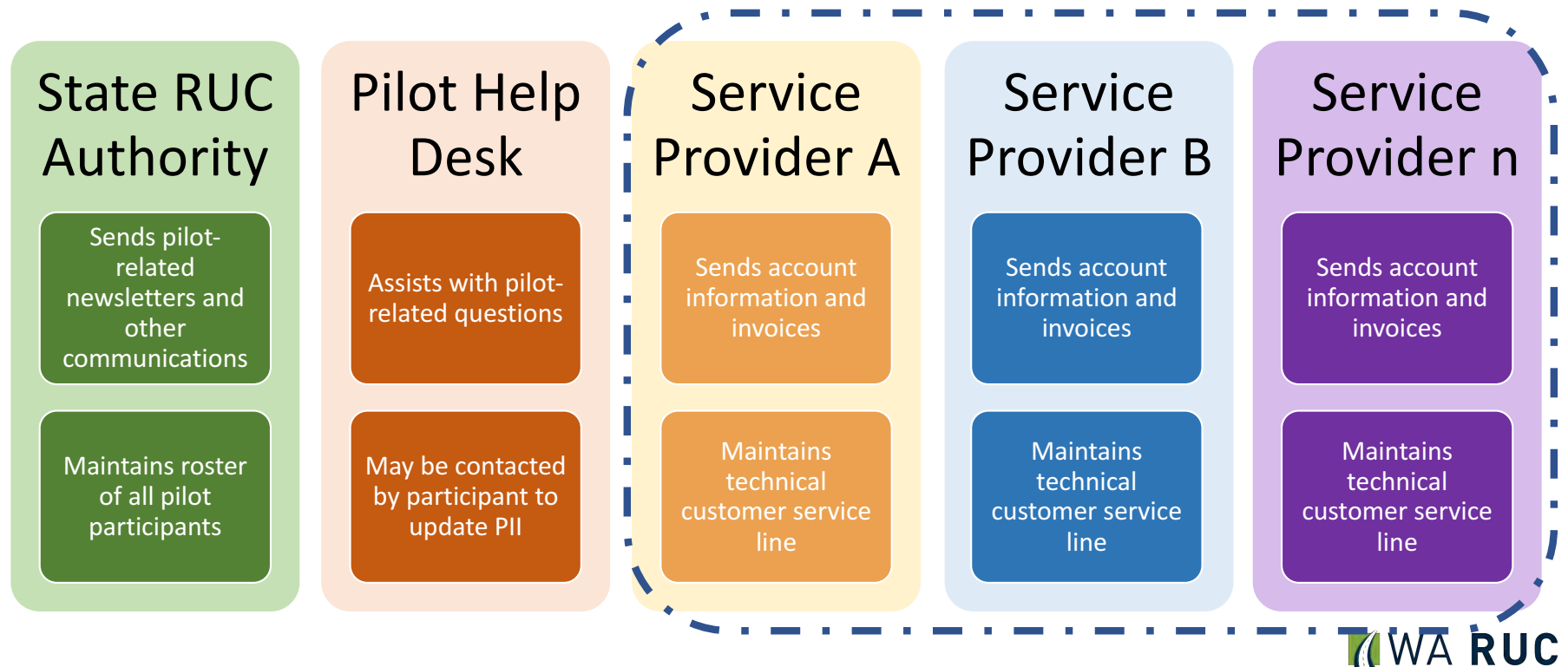
 WA RUC

BACK-OFFICE DETOUR: MANAGEMENT OF RUC DATA AND PARTICIPANT INFORMATION

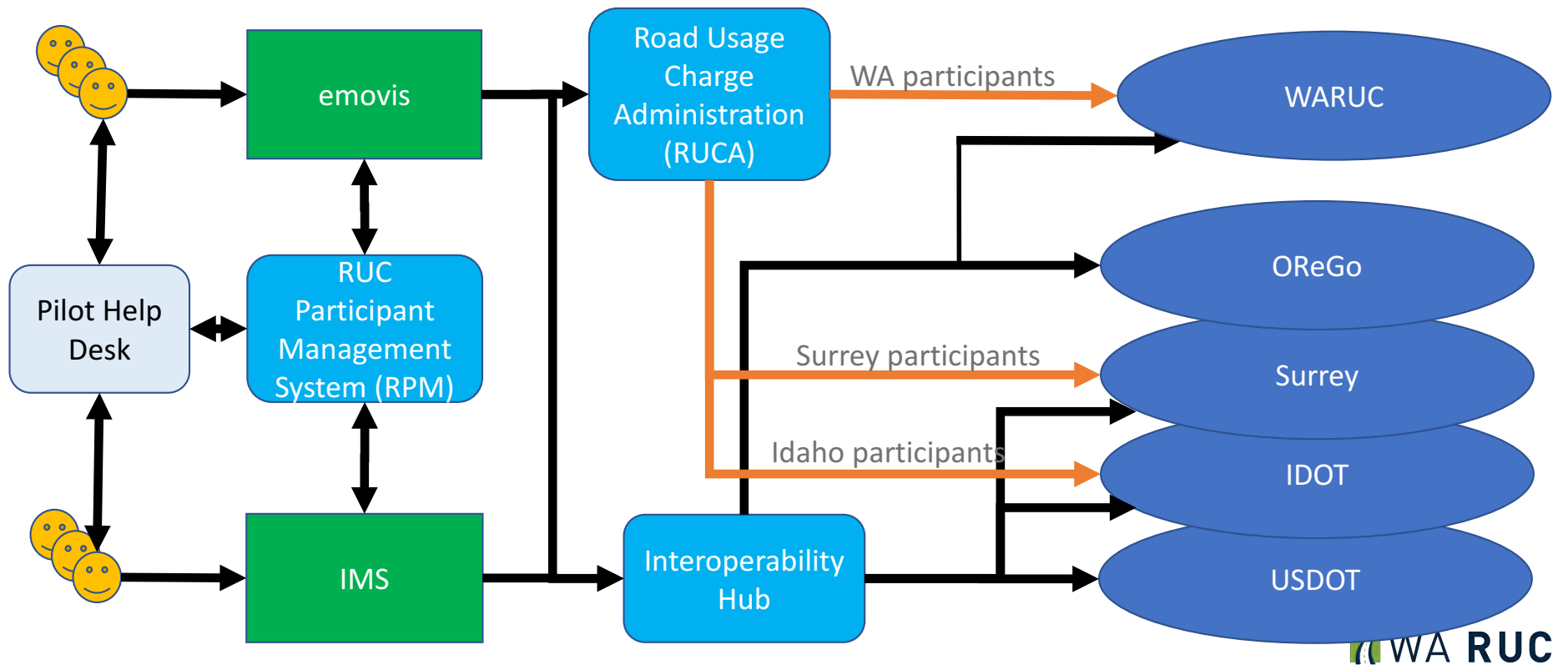
Shannon Crum,
D'Artagnan Consulting

RPM SYSTEM

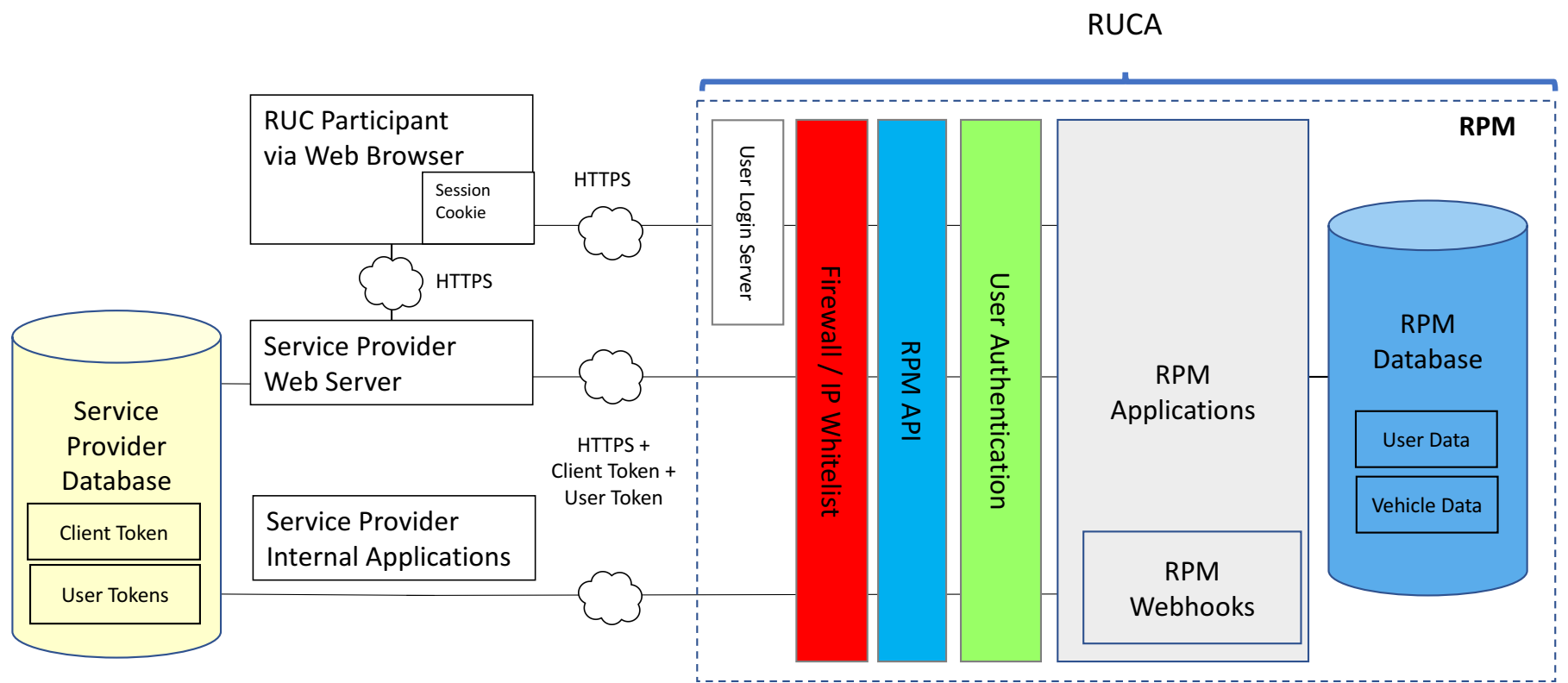
Challenge in prior RUC pilots: managing PII



RUC SYSTEM ARCHITECTURE



RPM SYSTEM



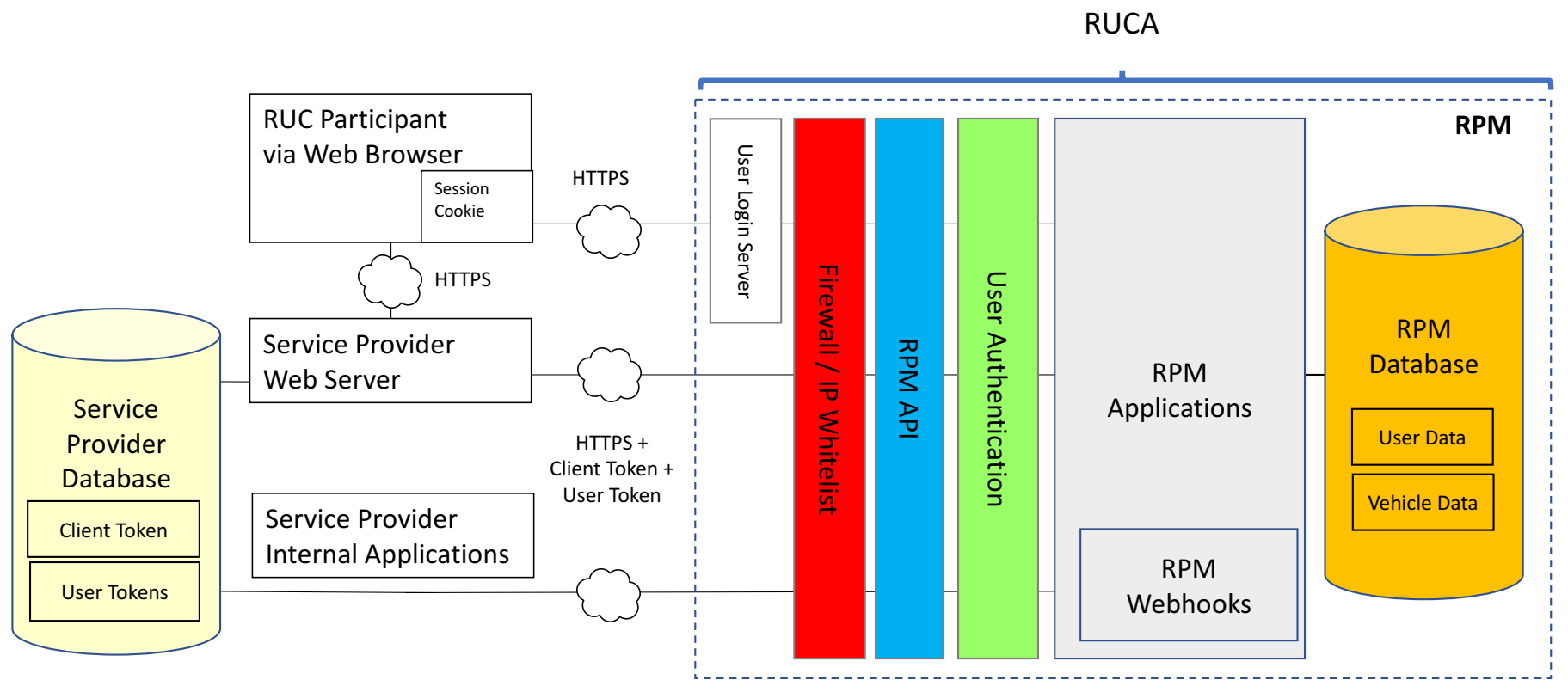
SINGLE SIGN-ON CAPABILITIES

- In addition to allowing near real-time synchronization of participant information, RPM allows the pilot to use a Single-Sign-On

Complete the required info where shown below.

Name:	Shannon
	Enter your middle name (optional)
	Crum
Email:	shannon.crum@dartagnanconsulting.com
Activation Code:	YYY999

RPM SYSTEM



SINGLE SIGN-ON CAPABILITIES

- Participants use the same credentials for logging into emovis or DRIVESYNC (IMS).

Please login to allow this Service Provider to access your WARUC account. Use the email and password you chose during your WARUC registration.

Sign in to WARUC

 Remember me

RPM

- Participant credentials and contact information automatically move with them if they change Service Providers.
- RPM monitors vehicle registration with Service Providers
 - Easily identifies un-registered vehicles
 - Does not allow a vehicle to be registered with more than one Service Provider at the same time (or the same Service Provider twice)

BACK-OFFICE DETOUR: MULTI-JURISDICTIONAL RUC FINANCIAL ACCOUNTING SYSTEM

Shannon Crum,
D'Artagnan Consulting

ROAD USAGE CHARGING – NATIONAL ACTIVITY

- Road usage charging is being looked at in several states across the country.
- 14 western states are involved in **research, testing, or legislatively enacted programs.**
- Most important remaining task: let the public “test drive” RUC through a live pilot test (volunteer participants).



Source: RUC West

JURISDICTIONS COULD FORM BILATERAL AGREEMENTS TO DIRECTLY RECONCILE FUNDS...



And in a RUC system with 48 states, a network of 1,128 separate bilateral agreements is required...

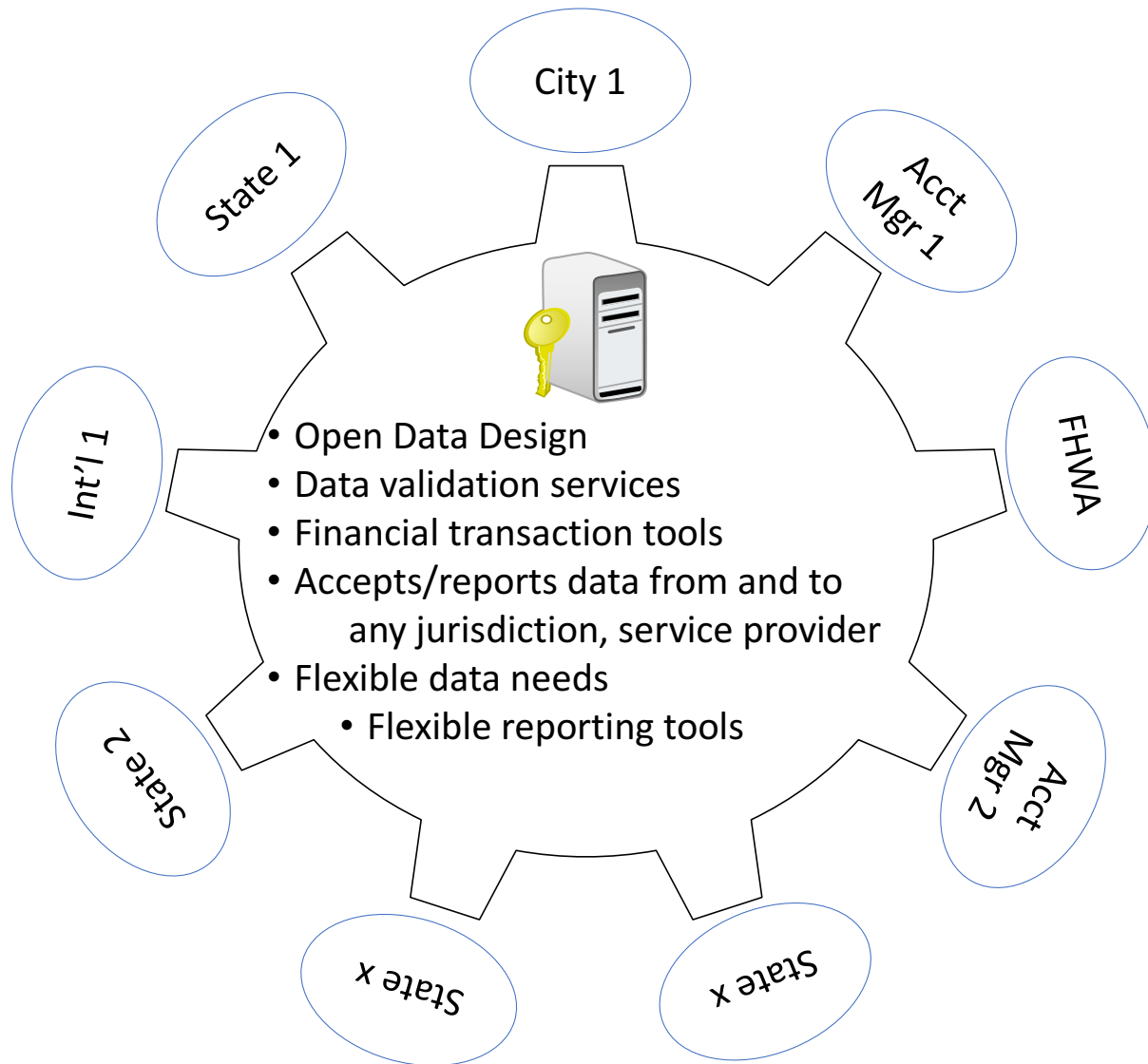
JURISDICTIONS COULD ASK RUC SERVICE PROVIDERS TO COLLECT/DISTRIBUTE RUC TO STATES...

- In essence requires all states to contract with the same Service Providers
 - Could limit competition and increase costs
- ...or to enter into contractual relationships with Service Providers that are not active in their states for the purposes of collecting funds

HUB

Washington RUC Pilot is testing a model that:

- Does not require numerous bilateral agreements
- Is completely independent of Service Providers
- Can perform selected data management functions, potentially reducing the state's administration costs
- Performs financial reconciliation of RUC among jurisdictions
 - Calculates RUC due to/from jurisdictions
 - Handles payments



HUB

During WARUC, testing concentrates on:

- Data Management
- Mileage Reconciliation/Accounting
- Modeling financial reconciliation between jurisdictions
 - “paper” reconciliation will occur among participating jurisdictions as a back-office exercise
 - True financial reconciliation between Oregon and Washington will be modeled
 - Small number of both OReGO participants and Washington volunteers will pay both Washington and Oregon RUC during the pilot

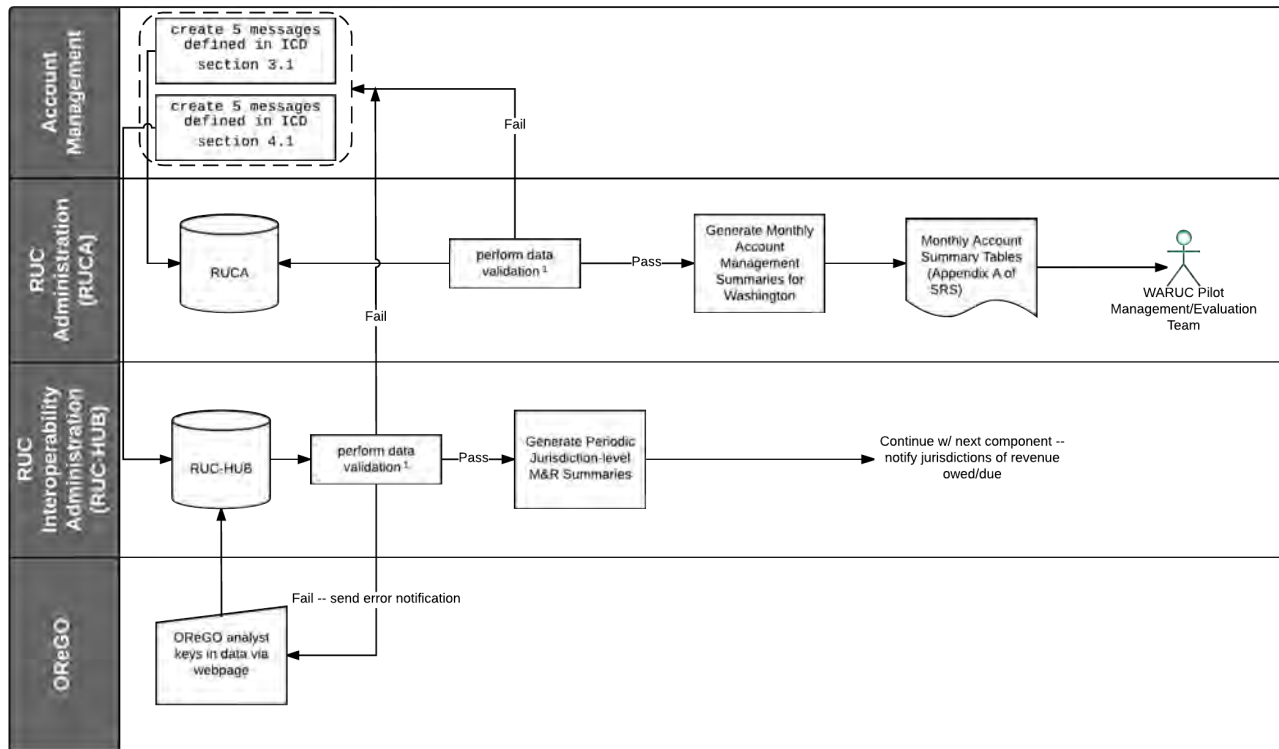
FINANCIAL RECONCILIATION BETWEEN OREGON AND WASHINGTON

Small number of both OReGO participants and Washington volunteers will pay both Washington and Oregon RUC during the pilot

- This small subset of pilot participants will be seeded with project funds, so there will be no cost to Washington volunteers, and no cost for Washington miles for OReGO volunteers
- Seeded funds will be “paid” back to the project as participants drive in neighboring states

HUB

Washington RUC -- Functional View by System Component



1. Data validation may result in iterative data loads to both RUCA db and RUC-HUB db by account managers. Generalized process is shown in "Data Validation -- AM to RUCA and HUB" flowchart

HUB

- **Challenges:**
 - Legal authority for collection/remittance, governance, ownership, and structure of HUB entity, enforcement, operational
 - This pilot is not attempting to resolve these
 - Will document challenges and issues in final report
 - Will research and present possible solutions
- **Testing specific “back-office” functionality of reconciling mileage data from multiple jurisdictions to calculate RUC due to/from jurisdictions, and modeling transfer of funds between them**

PILOT PROJECT EVALUATION PLAN

Allegra Calder,
BERK Consulting

- **Evaluation Purpose**
- **Guiding Principles & Measures**
- **Pilot Evaluation Methods**
- **Next Steps**

EVALUATION PURPOSE

- Address outstanding policy, public acceptance, and technical questions in a rigorous manner.
 - How does a road usage charge work for different drivers throughout the state?
 - How do the reporting methods work for drivers?
 - Will a road usage charge enable us to better fund our transportation system in the future?
- Pilot operations will generate information; the key will be to make it useful.

GUIDING PRINCIPLES & MEASURES

Established by RUC Steering Committee

Guiding Principle	Evaluation Measures
Transparency	<ol style="list-style-type: none"> 1. Change in participant understanding of gas tax rate, collection method, and use 2. Change in participant understanding of RUC rate, collection method, and use
Complementary policy objectives	<ol style="list-style-type: none"> 3. Impact of pilot on driving habits of participants 4. Impact of pilot on stated vehicle purchasing preferences of participants
Cost-effectiveness	No measures established
Equity	<ol style="list-style-type: none"> 5. Total and per-mile gas tax vs. RUC paid by urban, suburban, vs. rural status of participant 6. Total and per-mile gas tax vs. RUC paid by participant income 7. Total and per-mile gas tax vs. RUC paid by in-state vs. out-of-state participants 8. Participant expectations and before-and-after perceptions of RUC equity relative to gas taxes
Privacy	<ol style="list-style-type: none"> 9. Participant perception of privacy protection, including any changes in perception during the pilot 10. Relative ability of mileage reporting methods to protect participant privacy
Data Security	<ol style="list-style-type: none"> 11. Participant perception of data security, including any changes in perception during the pilot 12. Relative ability of mileage reporting methods to provide data security
Simplicity	<ol style="list-style-type: none"> 13. Time and indirect costs expended by participants to comply with pilot tasks 14. Participant understanding of compliance requirements

Guiding Principle	Evaluation Measures
Enforcement	<ul style="list-style-type: none"> 17. Participant perceptions of relative effectiveness of enforcement methods in maintaining compliance 18. Reasons for non-compliance expressed by participants (e.g., confusion, negligence, fraud) 19. Participant-stated locations of fuel purchases (potentially only for interoperability participants)
System Flexibility	No measures established
User Options	<ul style="list-style-type: none"> 20. Participant overall satisfaction and relative satisfaction with choices available in the pilot project 21. Reason for participant preferences of various mileage reporting methods
Interoperability and Cooperation	<ul style="list-style-type: none"> 22. Description of assignment of responsibility and oversight for Washington agencies and other jurisdiction agencies involved in pilot 23. Participant understanding of interoperable RUC 24. Relative ease of compliance for interoperability test participants vs. others
Phasing	No measures established

PILOT EVALUATION METHODS

How will the pilot be evaluated?

EVALUATION METHODS

1. Participant Surveys
 - 1a. Participant Quick Polls
2. Participant Focus Groups
3. Pilot Data Analysis
4. Agency Interviews
5. Participant Case Studies
6. Scofflaw Test
7. Fuel Purchase Log Analysis
8. Policymaker Interviews
9. Steering Committee Facilitated Discussion

TIMING

BEGINNING

MID-POINT

END

1. PARTICIPANT SURVEYS

What: Online surveys about RUC pilot experiences – mandatory as a pilot participant

Who: All pilot participants

Purpose:

- To learn about experiences with account set-up and other pilot components, as well as thoughts on policy questions
- Should allow for cross-tabs by geography and participant demographics

TIMING

BEGINNING

MID-POINT

END

1A. PARTICIPANT QUICK POLLS

What: 1-2 quick online questions – voluntary participation

Who: Pilot participants

Purpose:

- To get a snapshot of what participants understand about various aspects of RUC policy, and transportation funding more broadly
- Answer questions as they come up

2. PARTICIPANT FOCUS GROUPS

What: Guided group conversations with participants about their pilot experiences

Who: Select group of pilot participants (same group each time)

Purpose: To learn about participant experiences and perceptions in more detail, and to measure changes in understanding over time

3. PILOT DATA ANALYSIS

What: Anonymized data collection

Who: All pilot participants

Purpose: To analyze RUC participants driving by geography and other factors

TIMING

BEGINNING

MID-POINT

END

4. AGENCY INTERVIEWS

What: Conversations with partner agencies about RUC pilot

Who: Department of Licensing; Oregon Department of Transportation; WSDOT; WSTC; Surrey, British Columbia

Purpose:

- To learn about accountability, interoperability, and cooperation issues from the agencies
- Help evaluate responsibility and oversight questions

5. PARTICIPANT CASE STUDIES

What: One-on-one conversations with participants about their pilot experiences

Who: Select group of pilot participants from different locations and with different vehicles/driving habits

Purpose:

- To document and communicate individual stories of participant experiences
- Learn about changes in perception or behavior over time

6. SCOFFLAW TEST

What: Examination of the pilot design from a participant perspective to identify ways to evade RUC

Who: Researchers

Purpose: To learn about compliance and enforcement in a controlled environment without disrupting the pilot

7. FUEL PURCHASE LOG ANALYSIS

What: Fuel purchase analysis based on pilot participant-provided information

Who: Select group of participants who live near Oregon border

Purpose: To understand whether residents near a border purchase fuel on one side and primarily drive on the other

8. POLICYMAKER INTERVIEWS

What: One-on-one conversations about the RUC pilot experience

Who: Commissioners and elected officials who participated in the pilot

Purpose: To gather detailed feedback from policymakers about the pilot

9. STEERING COMMITTEE FACILITATED DISCUSSION

What: Focused discussions about RUC pilot with Steering Committee members

Who: Steering Committee members

Purpose: To gather feedback from members on their perceptions of the pilot experience and discuss policy questions

NEXT STEPS

NEXT STEPS

- Review and discussion today
- FINAL Evaluation Plan issued before December 1, 2017
- Some items may be scaled according to available budget
- Evaluation tasks begin in early 2018

DRAFT POLICY ISSUE RESEARCH WORK PLAN

Travis Dunn,
D'Artagnan Consulting

- **Summary of WA RUC Pilot Project**
- **Meeting Objectives**

SUMMARY OF POLICY ISSUES

Address in conjunction with pilot launch	Address based on pilot findings	Address apart from the pilot test
<ul style="list-style-type: none"> • How to operationalize the four RUC operational concepts • Whether and how to charge out-of-state drivers • Exemptions from road usage charges for demonstration • Refunds • Use of private sector account managers 	<ul style="list-style-type: none"> • Driver reaction to the proposed RUC system • Public understanding and acceptance of the proposed system • State information technology (IT) needs • Institutional roles in implementing any future RUC system 	<ul style="list-style-type: none"> • Interoperability with GoodToGo toll system • Legal issue: Interstate Commerce Clause • Legal issue: 18th Amendment • Per-mile rate setting process and roles • Motor fuel tax bond requirements • Permanent exemptions • Use or dedication of RUC revenue • Rate setting basis for time-based permit • Transition strategy - vehicles subject to paying RUC • Interoperability with other states

ISSUES TO ADDRESS IN CONJUNCTION WITH PILOT LAUNCH

OPERATIONALIZING RUC CONCEPTS

- Identify legal and policy requirements of operational concepts being tested
- Develop alternative definitions

Examples:

- Definition of chargeable events
- Basis for distance measurement
- Enforcement of selection of a reporting method



CHARGING OUT-OF-STATE DRIVERS

- Define charging policy based on concepts tested for out-of-state drivers
- Gather feedback from pilot to inform alternatives

Examples:

- Require all visitors to report mileage; provide choices
- Optional mileage reporting with gas tax as back stop



RUC EXEMPTIONS

- Define range of possible exemptions categorized by type location, vehicle type, special factors
- Examine merits and drawbacks of exemptions based on justifications

Examples:

- Off road miles
- Emergency vehicles
- Agricultural vehicles



RUC REFUNDS

- Define range of possible refunds by category
- Examine merits and drawbacks of exemptions based on justifications

Examples:

- Prepaid, unused mileage
- Exempt road use by vehicles without automated reporting
- Gas tax



USE OF PRIVATE SECTOR SERVICE PROVIDERS FOR RUC COLLECTION

- Define range of delivery models for RUC provision, organized by function
- Examine merits and drawbacks of each approach

Examples:

- Agency delivered function
- Contract with one or more private providers per function
- Open market for one or more functions



ISSUES TO ADDRESS BASED ON PILOT FINDINGS

DRIVER REACTION TO PROPOSED RUC SYSTEM

- Based on pilot participant feedback, prioritize possible features to establish in policy
- Analyze trade-offs of prescribing in statute vs. in regulation vs. leaving open

Examples:

- Payment methods
- Invoice or account statement contents
- Enrollment process



PUBLIC UNDERSTANDING AND ACCEPTANCE

- Analyze pilot participant feedback to discern which pilot features improve understanding and/or acceptance of transportation funding
- Prioritize acceptance factors

Examples:

- Automation/technology
- Integration with other services
- Customer service quality



STATE IT NEEDS

- Based on pilot experience, describe state agency IT gaps
- Analyze merits of alternative approaches to fulfilling IT needs

Examples:

- Customer account management
- Integration with DOL vehicle registry
- State accounting system



INSTITUTIONAL ROLES

- Based on organizational design work, present policy alternatives for authorizing agencies to implement RUC
- Analyze opportunities for and barriers to effective delivery

Examples:

- Authority for RUC collection
- Authority for RUC enforcement
- Ability to share information, roles across agencies



ISSUES TO ADDRESS APART FROM THE PILOT

INTEROPERABILITY WITH STATE TOLLING

- Identify shared user-facing functions
- Examine back-office implications of various levels of coordination, integration

Examples:

- Enrollment
- Customer account management
- Payments



LEGAL ISSUE: INTERSTATE COMMERCE CLAUSE

- Analyze constitutional protections related to collection methods
- Analyze constitutional protections related to rate setting

Examples:

- Requirements on or options for mileage reporting for visitors
- Enforcement of payment for visitors



LEGAL ISSUE: 18TH AMENDMENT

- Document legal principles of 18th amendment
- Develop statutory or constitutional alternatives for application to RUC; analyze implications of each

Examples:

- Constitutional restriction on RUC similar to gas tax
- Statutory protections on RUC similar to gas tax



PER MILE RATE SETTING PROCESS AND ROLES

- Describe analytical approaches for rate setting
- Describe processes for rate setting
- Analyze approaches and processes

Examples:

- Revenue-neutral with or without factors
- Cost allocation basis
- Utility commission approach



MOTOR FUEL TAX BOND REQUIREMENTS

- Build on previous work of Steering Committee and Treasurer's Office
- Outline approaches for dealing with MVFT bonds under various RUC transitions and analyze impacts

Examples:

- Keep fuel tax in place to service current bonds outstanding
- Refund bonds
- Make debt service payments with RUC



PERMANENT EXEMPTIONS

- Define range of possible exemptions categorized by type location, vehicle type, special factors
- Examine merits and drawbacks of exemptions based on justifications

Examples:

- Off road miles
- Emergency vehicles
- Agricultural vehicles



USE OR DEDICATION OF RUC REVENUES

- Develop range of options for RUC revenue
- Develop criteria that legislature may wish to weigh in deciding use of revenues

Examples:

- 18th Amendment-type restrictions
- Restricted to transportation uses
- No restrictions



RATE SETTING BASIS FOR TIME-BASED PERMIT OPTION

- Highlight challenges with rate setting for time-based RUC permits
- Develop various approaches to rate setting and analyze their impacts

Examples:

- Price equal to RUC for average mileage driver
- Price set at 99th percentile mileage
- Available only for special classes of vehicles



TRANSITION POLICY

- Develop transition approaches
- Analyze the revenue, operational, cost, and policy impacts of each

Examples:

- Switchover fleet at once
- Gradual transition of new vehicles
- Gradual transition of high MPG vehicles



INTEROPERABILITY WITH OTHER STATES

- Outline alternatives for interoperating with other states: procurement, operations, data and financial clearing
- Analyze viability and effectiveness of each approach

Examples:

- Closed system
- Coordinate via data and/or financial clearinghouse
- Shared operations

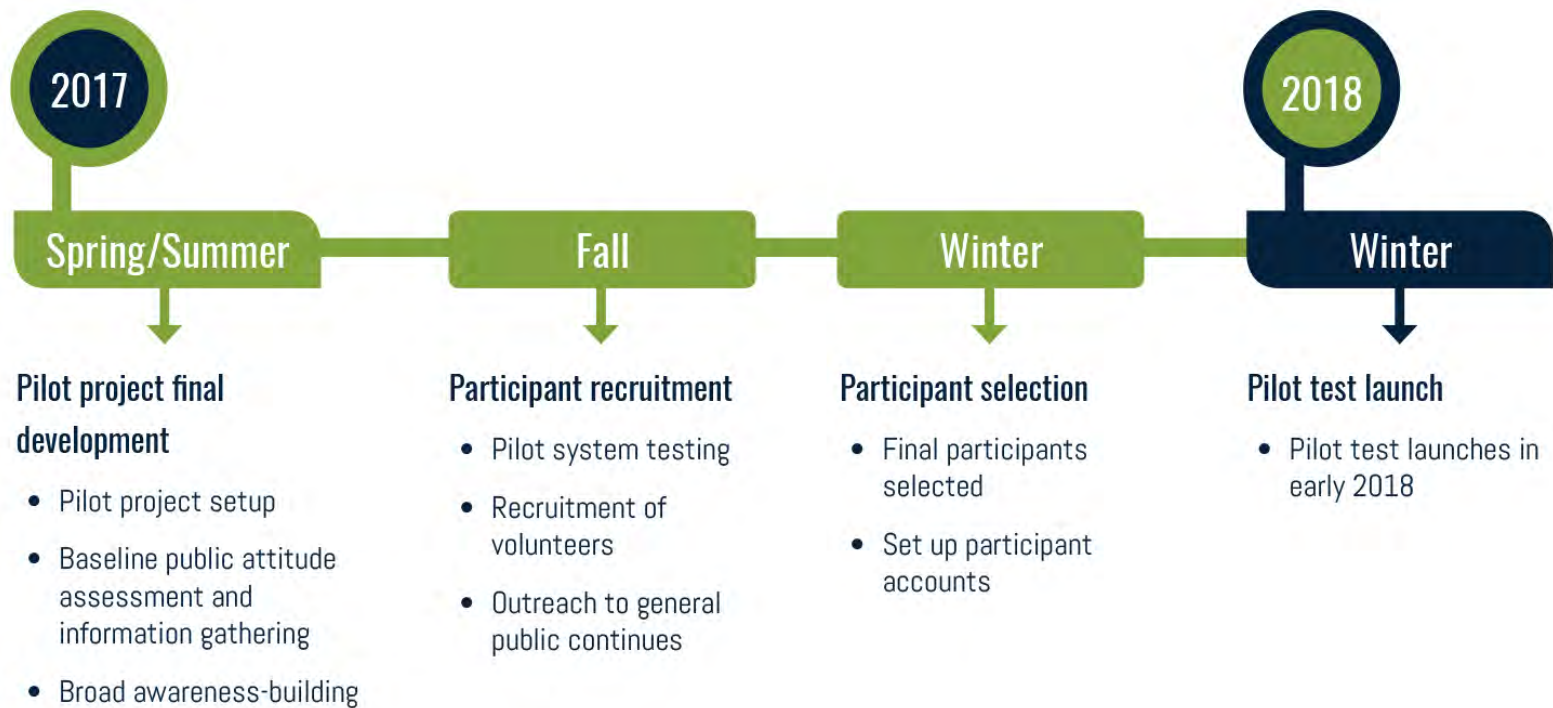


PILOT PROJECT SCHEDULE & MILESTONES

Jeff Doyle,
Project Manager
D'Artagnan Consulting

- **Summary of WA RUC Pilot Project**
- **Meeting Objectives**

SNAPSHOT OF PROJECT DELIVERY SCHEDULE



KEY PROJECT MILESTONES, THROUGH 2017

- ✓ Decision by FHWA on Round 2 STSFA Grant Funding – **AWARDED** -- (funds live pilot, evaluation and reporting)
- ✓ Web site refresh goes live
- ✓ Launch participant recruitment activities
 - Testing of all devices, account services and customer interface/support
 - Provide active assistance to British Columbia and Idaho participants
 - Establish partnerships with DOL agents/subagents located near participants that choose in-person odometer validation method

OTHER NOTABLE ACTIVITIES

- Continued coordination with Oregon DOT to establish parameters for financial interoperability test
- Outreach to stakeholders, responding to media requests
- Organizational Design analysis in Stage 2

PUBLIC COMMENT

THANK YOU

Consultant support provided by:



enviroissues



PORTLAND | SEATTLE | WASHINGTON DC

