



# In-Vehicle Payment

Special Interest Group

John Moon, COO, Connected Travel | 12 May 2020



# WE ARE IN A EPOCH SHIFT MOMENT



# Auto OEM Share of US Driver Retail Economy



Advertisers spent \$111B in 2019 to incent 282m US Drivers to drive and buy over \$2T in consumer retail products from brick & mortar retailers.

**\$764B**

Fuel Payments - \$370 B  
Auto Insurance - \$288 B  
Mobile Advertising - \$87 B  
Radio Advertising - \$18 B  
Tolls - \$15 B  
Parking Industry - \$10 B  
Billboards - \$6 B

**\$0**

Fuel Payments - \$0 B  
Auto Insurance - \$0 B  
Mobile Advertising - \$0 B  
Radio Advertising - \$0 B  
Tolls - \$0 B  
Parking Industry - \$0 B  
Billboards - \$0 B



# In-Vehicle Payments Use Cases



Pay for Telematics Services



Vehicle Loan or lease



Vehicle Registration Fees



Pay for Parking



Pay for Media and Entertainment



Pay for Tolls

Order for Pickup



Pay for Charging

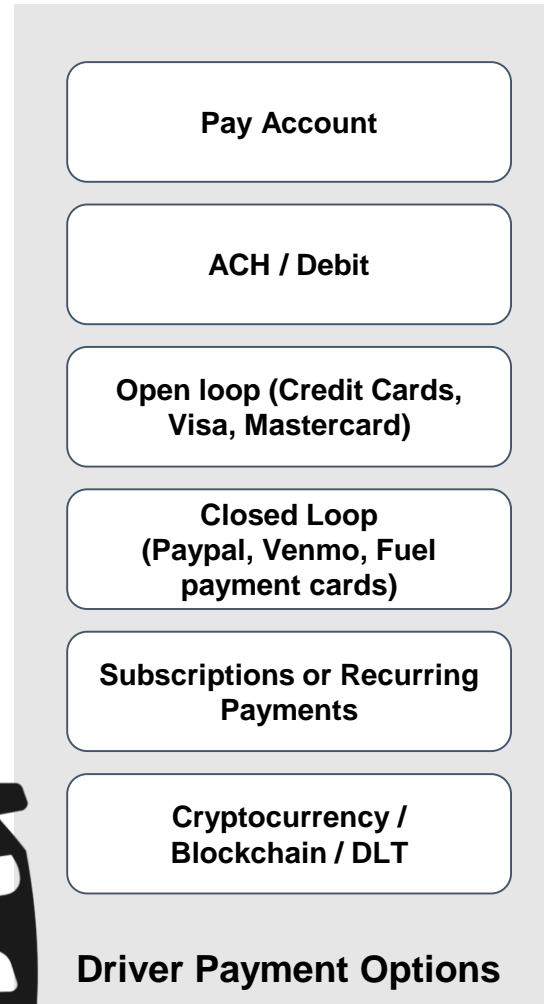


Pay for Fuel



Insurance Payment

# Unifying Payment Options Key To Removing Friction



Vehicle Loan or lease



Vehicle Registration Fees



Pay for Parking



Pay for Tolls



Pay for Fuel



Order for Pickup



Insurance Payment



Pay for Charging



Pay for Telematics Services



Pay for Media and Entertainment

# In-Vehicle Payments Technical Concepts



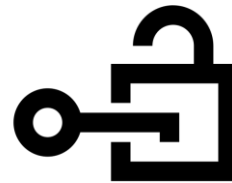
## Payments

Card On File  
Tokenization  
Merchant  
Integration  
Payment  
Processing /  
Gateway Integration



## Authentication

Biometric  
Eye  
Voice  
Fingerprint  
3D Secure



## UX

Voice  
Touch



Future Topics: ACH, Alternative Payments (Paypal, Venmo, etc), Head Unit Tokenization, Secure Remote Commerce (SRC), Blockchain / Distributed Ledger

# In-Vehicle Payment Challenges



**Security**



**Fraud**



**Regulations**



**Driver Safety**



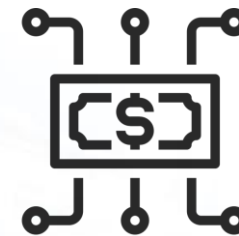
**Merchant  
Integration**



**Vehicle Technology  
Integration**



**Payments Ecosystem:  
Partner vs Vendor**



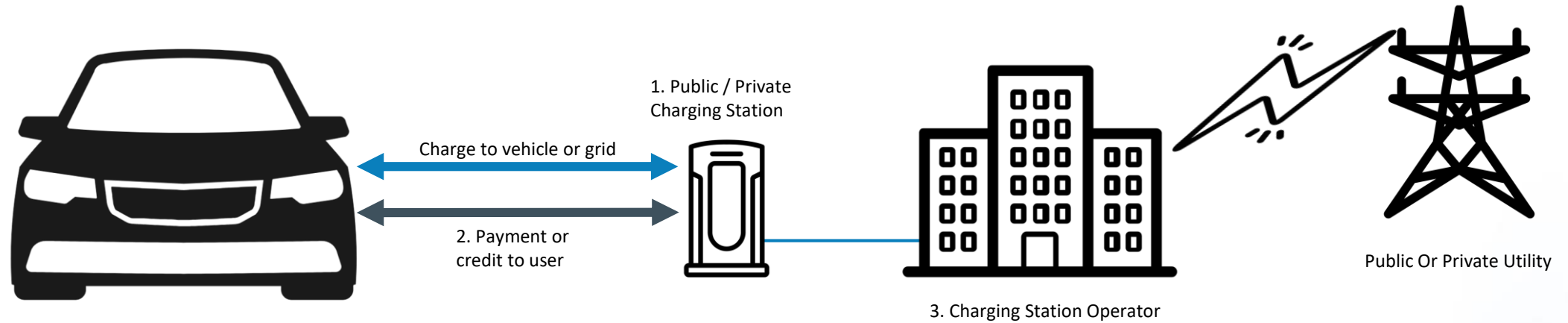
# Opportunities and Benefits of a GENIVI SIG



- 1. Develop technical standards in cooperation with payments ecosystem partners**
- 2. Develop payment interfaces that lower merchants and brands ability to address drivers**
- 3. Reduce cost for OEMs to explore service monetization**
- 4. Explore driver UX that enables commerce transactions to be conducted safely in the vehicle**



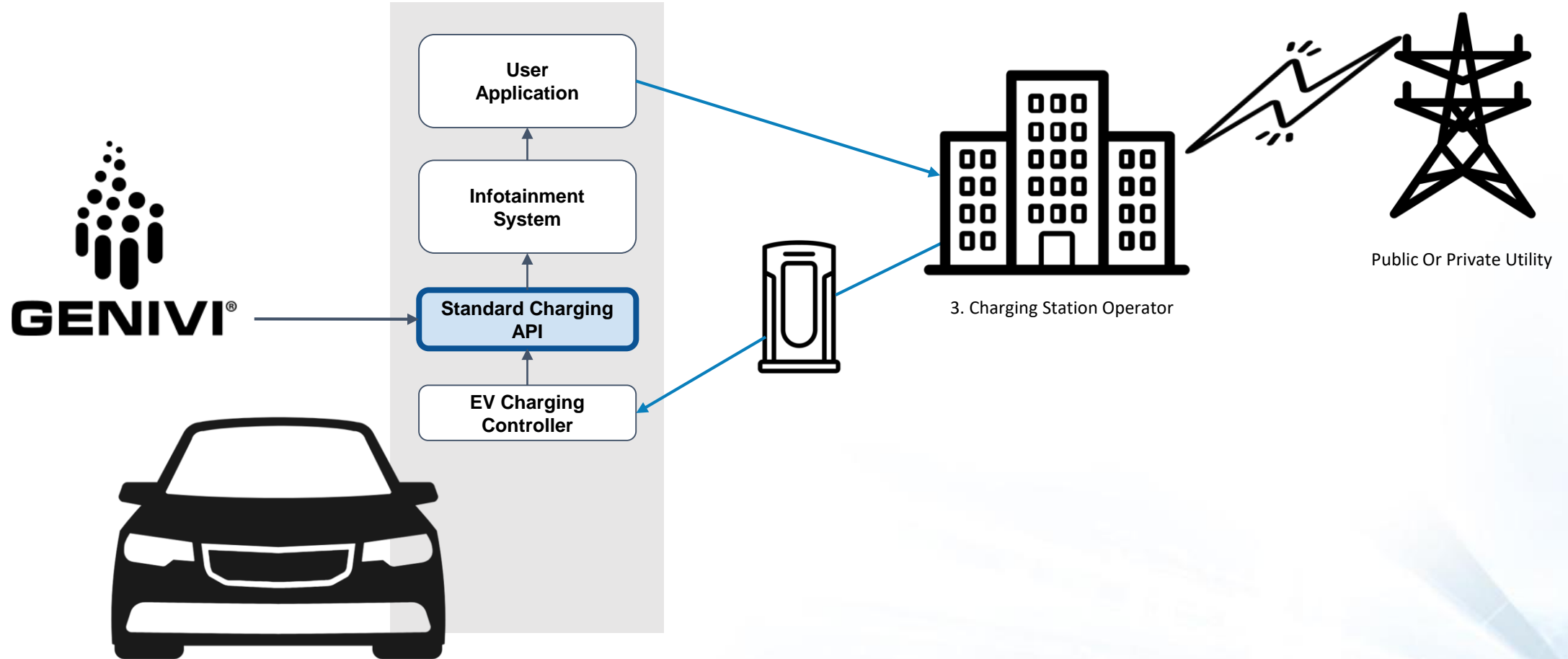
# EV Charging Payment Use Case



User will manage the energy consumption or supply back to the grid conveniently through their account on their mobile device. The charging station or vehicle can also act as a point of sale device to enable public, single use interaction without being a registered user of the charging station operator.

1. Allow user to charge at a variety of public or private charging infrastructure
2. Payment can be made or credit earned at charging infrastructure
3. Charging Station Operator reconciles energy use by users and can bill or credit users accordingly

# EV Charging Payment Use Case



# Current GENIVI Partners Interested in Payments



# Speaker Profile

## John Moon, COO Connected Travel

John Moon is Chief Operating Officer of ConnectedTravel focused on company growth and customer success. John has worked in a wide range of industries including mobile software development, video game middleware, interactive advertising and credit card security. John was most recently Managing Director at Honda Innovations exploring the integration of Honda vehicles and product with apps and services from startups to established partners. John holds a B.S. in Cognitive Sciences from UCLA.

# Thank you!

**Visit GENIVI:**

<http://www.genivi.org>

<http://projects.genivi.org>

**Contact us:**

[help@genivi.org](mailto:help@genivi.org)

John Moon, COO, Connected Travel

[Email: Jmoon@conectedtravel.com](mailto:Jmoon@conectedtravel.com)

Mobile: 1.917.710.7162

