

Emerging Technology and the Independent Auto Care Industry

BAR Advisory Group Meeting

Sacramento, California

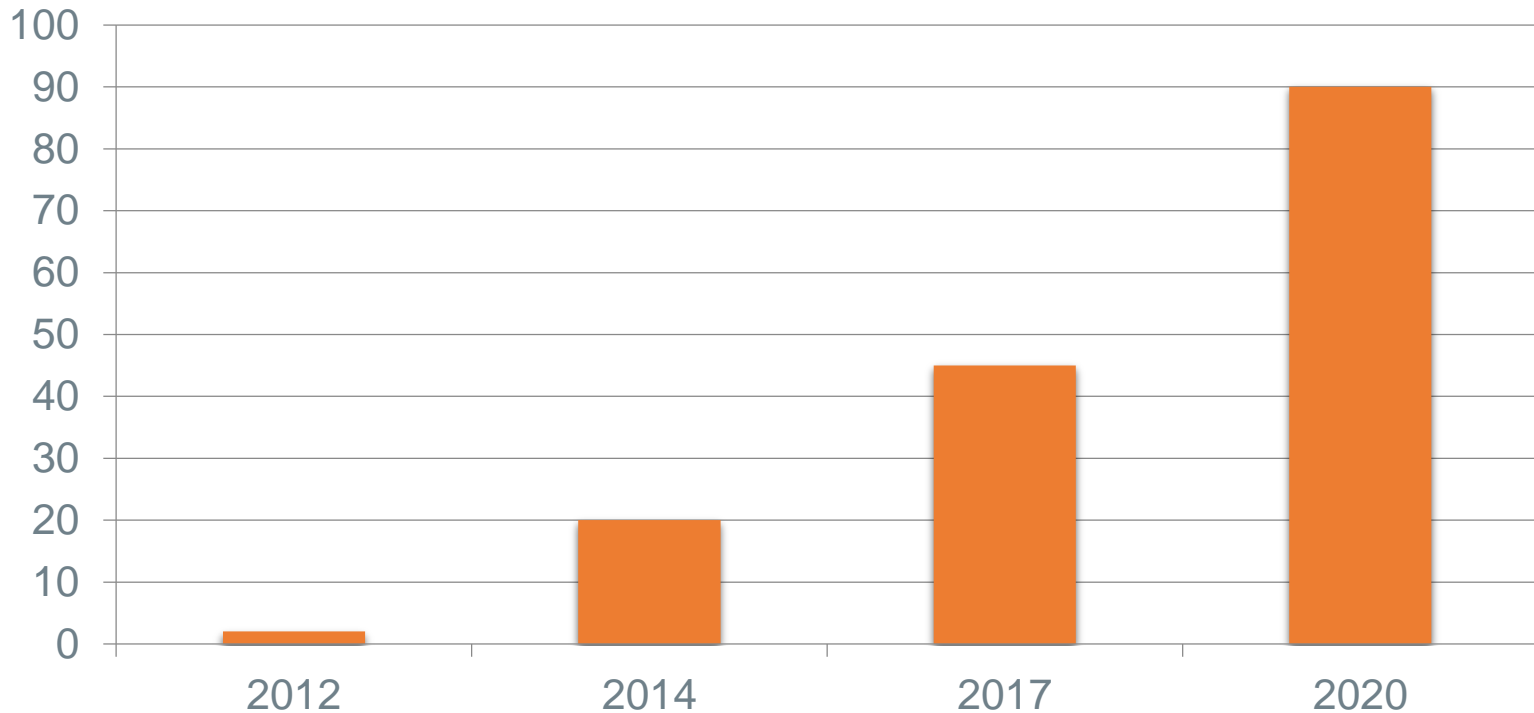
Thursday, April 20, 2017

What is Telematics?

- From the automotive perspective, telematics refers to automobile systems that allow, and facilitate the transmission, both sending and receiving of computerized information or data

42 Million Connected Cars by 2017

Portion of Sales w/ Embedded Telematics



Source: IHS Markit

Why Does the Aftermarket Care?

- Currently only vehicle manufacturers can obtain data transmitted by a vehicle
- Includes diagnostic information, geo location, and mileage to be sent for use by car company
- Most systems permit car companies to send messages directly to motorists regarding vehicle health or other available services
- Ultimately OBD port will disappear or be severely limited, leaving as the only source of diagnostic and repair data for late model vehicles

Possible Use Cases for Telematics

- Determine vehicle issues before car is in service bay, improving dealer service efficiency by permitting parts, tools and information to be ready when car drives into shop
- Communicate directly with consumer regarding need for service not simply based on mileage but on actual, mileage, fault detection and prognostics
- Obtain real world data on customer's vehicles

Auto Care Benefits

- Increased service bay efficiency
- Increase supply chain efficiency
- Better customer service
- Real world data on parts performance

Public Policy Opportunities

- Determine compliance with emissions and safety standards in use
- Emergency roadside alert
- Accident reconstruction
- Vehicle to Vehicle Communications

Auto Care Telematics Effort



telematics



TECHNICAL SOLUTION

open and equal access to data while ensuring cybersecurity



ADVOCACY

continue to negotiate with OEMs for complete access and have legislative path outlined if necessary

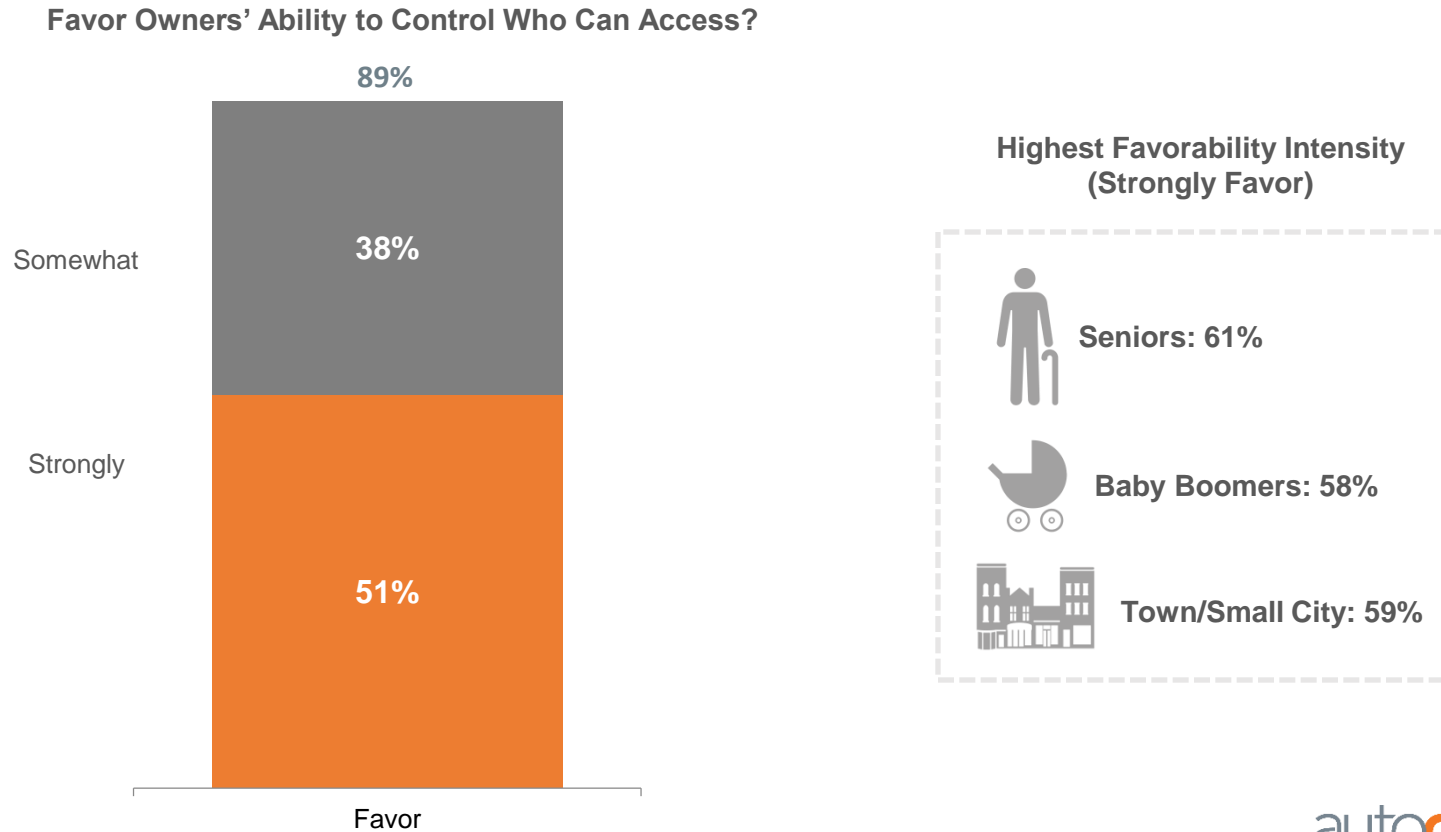


EDUCATION

ignite the industry and consumers into advocates for open access to vehicle data

Support for Owners Controlling Data Access

Consumers are overwhelmingly in favor of vehicle owners' ability to control their data access—half of all consumers *strongly* favor this idea—extremely high at the outset.



C31. Given that the information transmitted from a vehicle is only transmitted to vehicle manufacturers, to what extent would you favor or oppose vehicle owners having the ability to control who has access to their data? (n=1000)

Consumer Education – What Consumers Told Us

62%

of consumers haven't
heard of telematics

81%

of consumers think
vehicle owners
should decide who has
access to telematics data

Half

of consumers assume
car owners have access to the
data their car produces

7 out of 10

Over seven in 10 car owners think their
vehicle data being transmitted
to the auto manufacturer is a problem
and demand a change.

Consumers are willing to take action...

1. Sign a petition (87%)
2. Write a letter to your congressman (65%)
3. Contact local elected official (62%)

Education

- Auto Care believes that there is a need for strong education of consumers and industry regarding the need for car owners to control data transmitted by their vehicles
- Development of program is currently in progress

Technical Solutions: Considerations

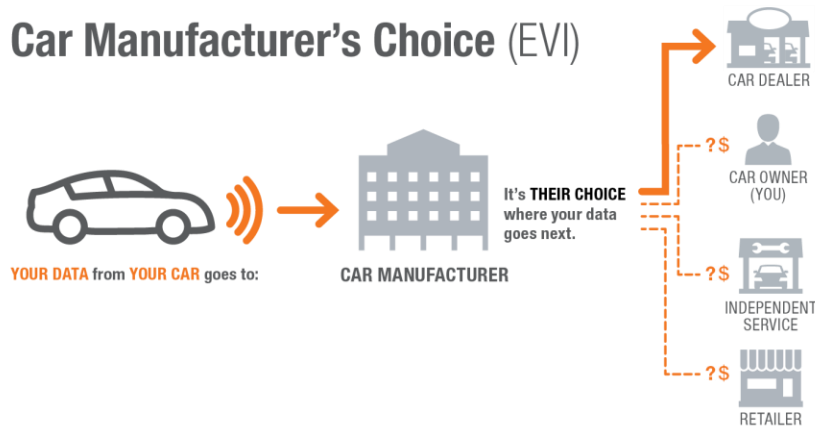
- Ensure cyber protections for critical vehicle systems to ensure car owner safety and privacy
- Permit with car owner permission, direct access to vehicle's telematics system for purposes of offering repair and other services to customers
- Cost and time to implement must also be considered as part of technical solution development

Proposed Technical Solutions Now Under Consideration

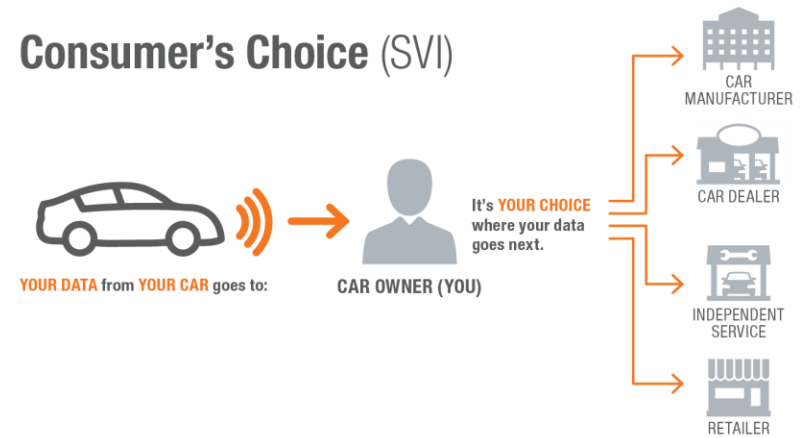
- Secure Vehicle Interface (SVI)
- “Extended Vehicle”

EVI vs. SVI

Car Manufacturer's Choice (EVI)



Consumer's Choice (SVI)



SVI

Advantages:

- Standardized firewall protects vehicle from either wireless or OBD port intrusions
- Permits full access to information needed to repair vehicle
- Would work with either wired or wireless connections
- Could be used with intelligent transport systems
- Cyber secure – limits the point of attack to one entry point (the vehicle), not the servers of a car manufacturer for their entire connected fleet

Disadvantages:

- Could take years to actually be implemented by OE's
- Even if adopted, industry would still need to push for access to telematics data

EVI

Advantages:

- Could be implemented in near term
- Would require no change to vehicle hardware or software

Disadvantages:

- Data funneled through car companies' infrastructure
- Would not permit auto care industry direct access to vehicle
- Proprietary access to the data

Impact on Auto Care Industry

- Under extended vehicle concept, car companies would control what diagnostic information is transmitted, how it is transmitted and how much it would cost
- Elimination of OBD port in future means that the extended vehicle concept would provide full control of access to data to automakers
- Would make the manufacturer the sole source of information, tools and software needed to perform repairs

Auto Care's Position

- Strongly support creation and deployment of SVI
- Aftermarket cannot support any concept that will eliminate direct access to vehicle telematics systems
- EVI should not be endorsed by Association as either short or long term solution

Access to Embedded Telematics: Auto Care Plan of Attack

- Educate industry, government and consumers on data ownership
- Work with manufacturers and government on issues related to protecting vehicles from cyber security threats and access to embedded telematics systems

Embedded Software: The Next Right to Repair Battle?

- Software is taking the place of mechanical control on many vehicle components
- GM 2000 Tahoe had 9 computer control modules, now 2015 Tahoe has 70 modules
- Through use of emerging technology, OEMs are limiting access to computer modules necessary to develop and fix electronics parts

Who Owns the Software?

- Right to repair doctrine in patent law always provided consumers with choices
- Car companies using copyright law to restrict access to software for parts development and for repairs
- Aftermarket companies being sued under copyright law taking OEM software off customer's vehicles and installing on new part

Resolving the Copyright Issue

- Need to clarify copyright law to ensure consumers own software for vehicle they purchase
- Current exemption under DMCA for access to software for purposes of repairs needs to be extended to third parties

Magnuson Moss Warranty Act

- Prohibits conditioning warranties on the use of a original equipment part or service
- Most consumers unaware of their warranty rights
- Manufacturers statements sometimes mislead consumers

MMWA Enforcement

- Auto Care and other groups have filed numerous complaints regarding car company issues
- Example: FTC ruled that BMW owner's manual requirement that all oil changes be performed at dealership was a violation of MMWA
- Example: Kia consumers

Kia Oil Filter

- Kia issued a bulletin to dealers in 2012 warning to deny any warranty coverage of any Kia cars that had used non-Kia oil filters
- Required dealers to automatically replace non-Kia oil filters with Kia filters and to charge customers
- Recently discovered the issue revolves around a Kia engine defect that causes increased pressure on oil filter

Kia Oil Filter cont'd

- Neither NHTSA nor FTC have responded to multiple letters from Auto Care and others
- We continue to receive calls from car owners being charged for expensive engine fixes due to denial of warranty coverage by Kia

MMWA: Ensuring Consumers are Protected

- Need to provide better information to consumers on MMWA
- FTC needs to be more aggressive in enforcement
- States can play an important role, example Connecticut

Connecticut MMWA Law

- Connecticut law passed in 2013 requires dealers to provide customers at time of purchase with statement that they do not have to return to dealer for maintenance of their warranty rights
- Similar legislation now under consideration in Florida and New Jersey
- Similar California bill died last year without consideration

Auto Care Plan

- Work to increase consumer education
- Continue to support laws requiring disclosure to consumers of their warranty rights
- Push for more enforcement of law by FTC



Thank You!

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