Commercial Fleet Telematics, Connected Vehicles & Future Mobility

Presented By:
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Autos offering any number of connected technologies, including:

- Telematics systems
- GPS-based navigation services
- Blue-tooth connected mobile devices

About 1-in-5 new cars sold this year will collect and transmit data outside the vehicle.

250 million connected cars globally by end of the decade.
Public Opinion for Car Features - As per Accenture Survey

- Lane-keeping system: 45%
- Fatigue warning device: 53%
- Autopilot: 46%
- Night Vision Device: 67%
- Lane changing warning system/blind spot warning system: 62%
- In-car video camera to record accident incidents: 54%
- Front/rear end collision alarm warning: 72%

Future of Urban Mobility

Ease of Operation, Maintenance

Safety and Insurance

Connected Network

Single vehicle Application

Information & Entertainment

Efficiency and Experience

Strategy for Startups

Need and Requirement

Overview
To Cloud

To Infrastructure

Within Car

Car to Car

To Personal Devices

OEM/Dealers

➢ Vehicle Connect
➢ Customer Connect
➢ Additional Revenue and brand Differentiator

Government

➢ E call
➢ Safety and Vehicle Tracking
➢ Traffic management

Business

➢ Insurance
➢ Toll payment, Concierge services
➢ Fleet management

Device Connectivity

➢ Mobile Integration
➢ Android and Apple device features
➢ Mirror link

Cloud Connectivity

➢ Via Smartphone
➢ Embedded Connectivity
➢ Cloud based SDP

In car and V2V connect

➢ Ethernet
➢ CAN
➢ Wifi

Need and Requirement

Overview

Future of Urban Mobility

Strategy for Startups

Connected at Home

Connected at Office

Connected Mobility

Connected Drive

Connected Drive at Home

Connected Drive at Office
Auto pilot and smart driving

Smart Parking and Traffic management, Toll payment

Condition Monitoring and ease of service

Tracking the goal of Pollution reduction

Innovation in Telematics for passenger safety

Accident Prevention and route tracking, improvement in ambulance service
• **Vehicle-to-Vehicle (V2V):** “the dynamic wireless exchange of data between nearby vehicles that offers the opportunity for significant safety improvements.”

• **Vehicle to Infrastructure (V2I):** “The wireless exchange of critical safety and operational data between vehicles and highway infrastructure, intended primarily to avoid or mitigate motor vehicle crashes but also to enable a wide range of other safety, mobility, and environmental benefits.”
Leading industry sources point out that by 2025, we may well expect to see that safety, infotainment and navigation have become ubiquitous to the Car, primarily due to broader demand and legislative mandates. In a sense, every car will be a connected car.

As governments and third parties such as insurance players across geographies are progressively taking cognizance of this trend, other aspects of the Connected Car such as electronics vehicle services, electronic tolling and PAYD insurance too will become an integral part of the car purchase.
5 Ways to Monetize the connected services

- Sales of connected car packages to consumers, mostly bundled with new cars (Audi, Mercedes)
- Use of connected car data to increase internal efficiency, quality, and product differentiation
- Defense of list price levels through differentiation, using connected services to reinforce customer loyalty
- Establishment of a comprehensive ecosystem of consumer services, with revenue sharing
- Creation of systems for using customer data, to be monetized through future (and yet unspecified) business models
Resist diversifying into businesses where capabilities are less.

Change the mental model as technology.

Using Autonomous Technology.

Cannibalize cash cows and build premium experience.

Set reasonable expectations for your own innovation focus.
Need and Requirement

Overview

Strategy for Start-ups

Future Of Urban Mobility

Connected car revenue share between premium and volume shares

Acquisition
Panasonic: Ficosa (2014)
Google: FCA (2016)
Nvidia: AdamasWorks (2016)
New entrants: Alix, Fujitsu, Kyocera, LG, Toshiba

Investment
Intel: Orrek (2013)
Cisco/NXP: Cohda Wireless (2013)
New entrants: CcHda Wireless, Kymeta, Veniam

Partnership
Verizon: Hughes (2012)
Airbiquity & Anynga (2016)
New entrants: Airbiquity, Allstate, Fleetmatics, Pivotal, Progressive, SnuX, Trimble, Verisk

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Privacy Considerations

• Consumer disclosures: When and How?
• Categories of information that might trigger such disclosures?
• Scope of consumer controls?
• Data retention and de-identification policies?
• Organizational accountability, how demonstrated?
Privacy Considerations

- **No business model has yet resulted in** customer acceptance, sustainability or willingness to pay.

- **A lack of security** in OBD ports and intra-vehicle networks is posing severe challenges to V2V and V2I programs.

- **A plethora of technologies**, including wider proliferation of interoperability and open platforms, is missing.
THANK YOU

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