

# WirelessCar

## @ Internet of Things

November 5th, 2009

*Martin Rosell*  
*Managing Director, WirelessCar*



**Global telematics with local flavor**



# Some numbers, *still growing* !

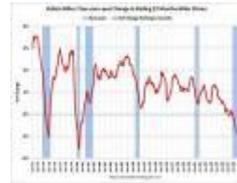
➔ Population on earth

7 bn



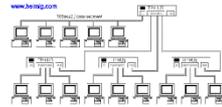
➔ Number of vehicles

<1 bn



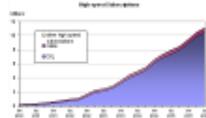
➔ Number of personal computers

>1 bn



➔ Number of mobile phones

3.7 bn



➔ Number of creditcards

4.3 bn



**CO<sup>2</sup> concentration >386 ppm**

**(August 2009)**

# WirelessCar, an operator of telematics services for the automotive industry

- **Founded 1999 as a JV between Ericsson, Telia and Volvo**
- **100 % focus on telematics-enabled services**
- **First telematics services delivered 2000**
- **Volvo Cars, BMW, Volvo Trucks and Volvo Construction Equipment prime customers**
- **Service delivery for 8 clients in 33 countries and on 4 continents**
- **Owned by Volvo Group through Volvo Information Technology**



# The Volvo Group and Telematics-enabled services

## Volvo Group Customers



# Connected Vehicle

## Fleet operators

Improved efficiency and cost optimization, usage management, mileage monitoring, maintenance management

## Authorities

Road charging, emission control, dangerous goods monitoring, e call (e-safety), anti-theft solutions etc.

## 3rd party service & software companies

Integration of 3rd party solutions



## Finance/insurance companies

Focus on minimizing risk by monitoring & control – security & usage mileage monitoring, maintenance management

## Drivers & families

Safety and security, Traffic related Online services, infotainment, remote communication with your car

## Car manufacturer/dealer

In order to manage up-time, increase parts & service sales, warranty management, data collection for R&D, improved customer relationship management, proactive behavior, VIP treatment, direct messaging and communication with driver

## Cargo Owners

Monitoring of location, & status etc.

# Volvo Group

## New demands on communication

### CONNECTED TRUCK

#### **MORE UPTIME**

- Dynamic service plan
- Remote diagnostics
- Predictive maintenance
- Parts planning
- Breakdown assistance

#### **LOWER COSTS**

- Vehicle Management
- Driver Time Management
- Security services
- Fuel Management
- Transport Management
- Driver Training

**MORE  
UPTIME**

**OPTIMAL  
SPEC.**

**LOWER  
COSTS**

**SATISFIED  
DRIVERS**

**PARTS & WORKSHOPS**

### PERSONALIZED TRUCK

#### **OPTIMAL SPEC.**

- Logged vehicle data
- Software upgrades
- Accessories
- Re-conditioning

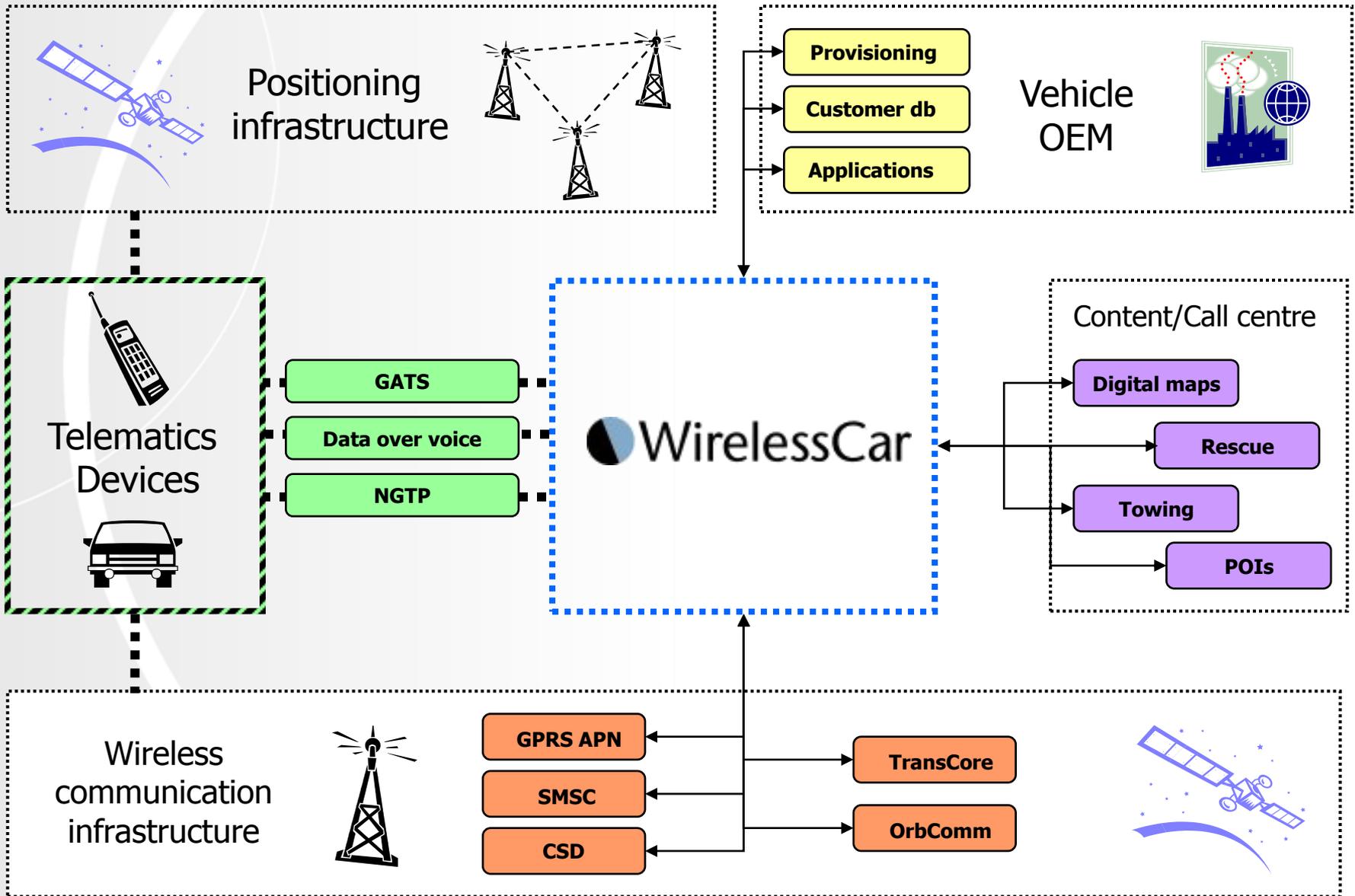
#### **SATISFIED DRIVERS**

- Driver training
- Security services
- Infotainment services
- Accessories
- Merchandise
- Safety management

# With volume comes overview and control



# Telematics Eco-system



# WirelessCar service packages

## Extended Safety Packages

Safe Speed  
Early Warning  
ADAS

## Apps & Content

My Vehicle Online  
Infotainment  
Widgets

## Extended Package

Call center concierge support  
POI download  
Vehicle health status

## OEM Package

Remote Diagnostics  
Service Notification/History  
Service History  
Leasing Administration  
OTA SW Management

## Safety Packages

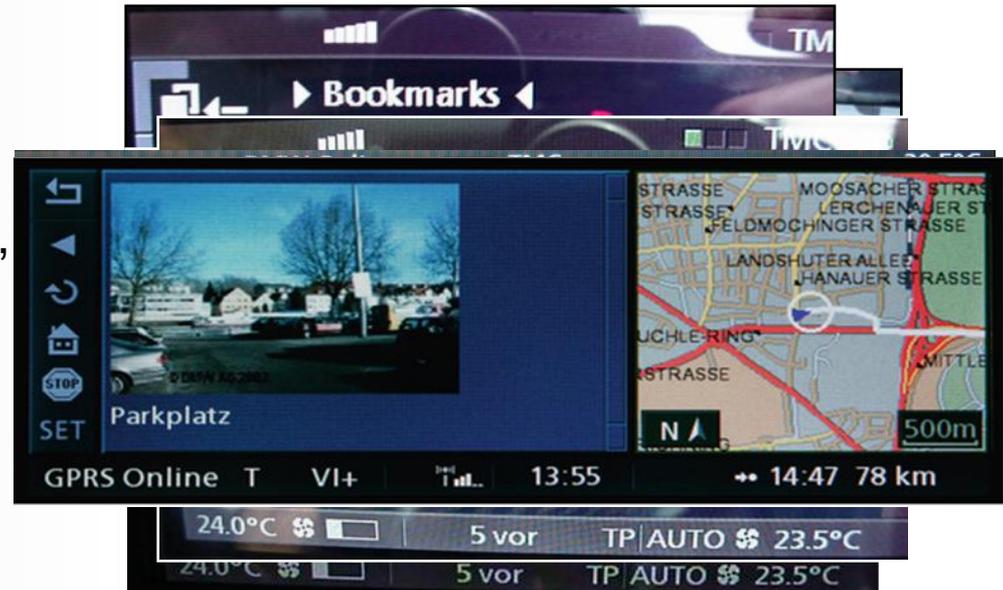
Automatic Crash Notification  
Manual Emergency Call  
Breakdown Call

## Security Package

Theft Notification  
Stolen Vehicle Tracking  
Remote Flash and Horn  
Remote Control Services

# BMW ConnectedDrive services

- BMW Assist
  - E-call automatic/manual
  - B-call with Telediagnose
  - I-call
  - Navi destination download
- BMW Online
  - Mobile Office E-mail, calendar,
  - News, sport, Weather
  - Yellow and white pages
  - Financial information



http://172.21.22.36:8080 - BMW TeleAssist Workstation - Microsoft Internet Explorer

**Service Request** | Customer | Vehicle | POI

Dara Heed | B-Call | AUDH16 | +46703222941

**Service type:** B-Call  
**Start time:** 26/10/05 22:02:03  
**End time:**  
**Operator:** aus  
**Trigger type:** Manual

**Location**  
**Street:** M3  
**City:** EIGHT MILE PLAINS  
**State:** QUEENSLAND

**Checkpoints**  
26/10/05 UseCase start  
22:02:03 message received  
26/10/05 message sent  
message delivered  
est message sent

Cancel      End SR ▶

Map | Search results | Undock

Map interface with POIs

**Active Service Requests**

Type	Reg nr	Car phone	Operator	Time	Trigger type	St
B-Call	AUDH16	BMW0000000000AUDH126	aus	26/10/05 22:02:03	Manual	83

Operator alarm queue with CTI connection

Vehicle, customer and service information

Map interface with POIs

Operator alarm queue with CTI connection

Logged on as Charlie Fisher | [Log out](#)

### MAPPING & TRACKING

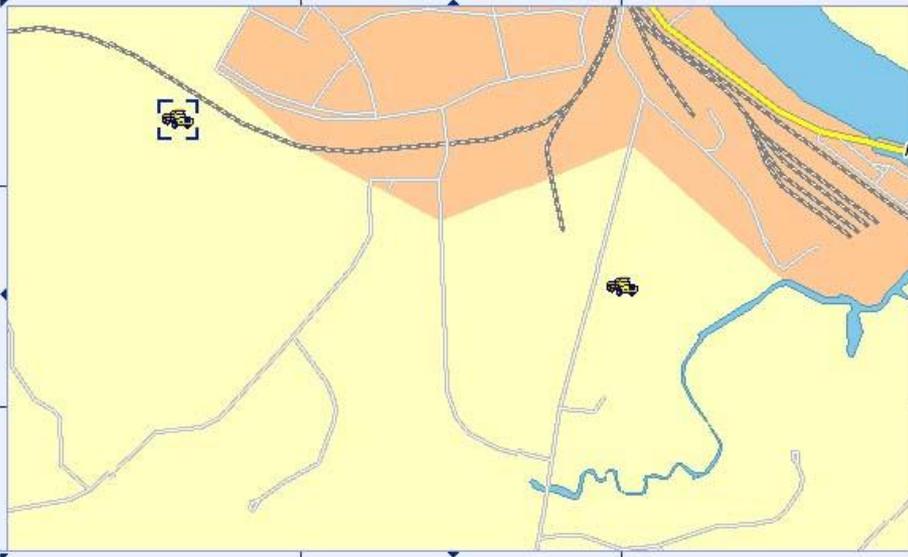
Custom Types Search

- ALL
- My own group
  - L150 E
    - View on map
  - Spe
    - Summary
  - Onl
    - Request update

Map Geofence Location report

Favourites: Select Save Update

zoom Select machines in mapview



#### Machine information



[View on map](#)  
[Machine summary](#)

**Name:** L150 E  
**Machine type:** L150E  
**Latest update:** 050507 18:03  
**Total machine hours:** 1953 h  
**Estimated annual machine hours:** 3874 h  
**Product identification number:** L150EV8010

**Fuel status:** 56 l  
**Speed:** 0 km/h  
**Location:** 57N26, 15E04

#### Machine note:

Boom Suspension System Fitted  
CDC Comfort drive control Fitted  
Used in Gravel Pit - Double shift  
Loading Crusher  
CSA Gold

[edit note](#)

 [New alarms : 4](#)  
 [New error codes : 3](#)

## MAPPING & TRACKING

Custom Types Search

ALL

- + My own group
- + Special vehicles
- + Only sweden

Map Geofence Location report

**Update**

Machine	Location	Lastest update	Fuel status	Speed	Alarms/errors
L150 E	57N26, 15E04	050507 18:03	56l	0km/h	1/1
John's WLO	59N22, 16E30	050508 14:03	48l	0km/h	1/1
L180 E	Eskilstuna, SWE	050506 09:23	34l	0km/h	0/0
L220 E	57N26, 15E04	050508 22:17	25l	6,5km/h	1/2
A30 D	47N28, 17E14	050506 12:14	29l	7,9km/h	0/2
A40 D	Boliden, SWE	050507 13:38	17l	10,7km/h	3/2
EC210B	Boliden, SWE	050507 13:38	12l	8,2km/h	0/3
EW180B	Boliden, SWE	050507 13:38	14l	6,2km/h	1/2
L25 B	Boliden, SWE	050507 13:38	32l	3,2km/h	1/0

**Total:** 9 in list

### Machine information



[View on map](#)  
[Machine summary](#)

**Name:** L220 E  
**Machine type:** L220E  
**Latest update:** 050508 22:17  
**Total machine hours:** 20871 h  
**Estimated annual machine hours:** 5422 h  
**Product identification number:** L220EV2112

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**Machine note:**  
 Waste Handling Equipped (Guards and protections)  
 Reversible cooling fan  
 Campaign WLO684 undertaken 15/06/2005

[edit note](#)

[New alarms : 4](#)

[New error codes : 3](#)



HOME



ME & MY CAR



REMOTE CONTROL



DEALER & SERVICE



A WAY OF LIFE



COMPANY CAR



ROUTE PLANNING



ABOUT



MY PROFILE

MY CAR

CAR STATUS

ECO RATING

CAR LOCATION

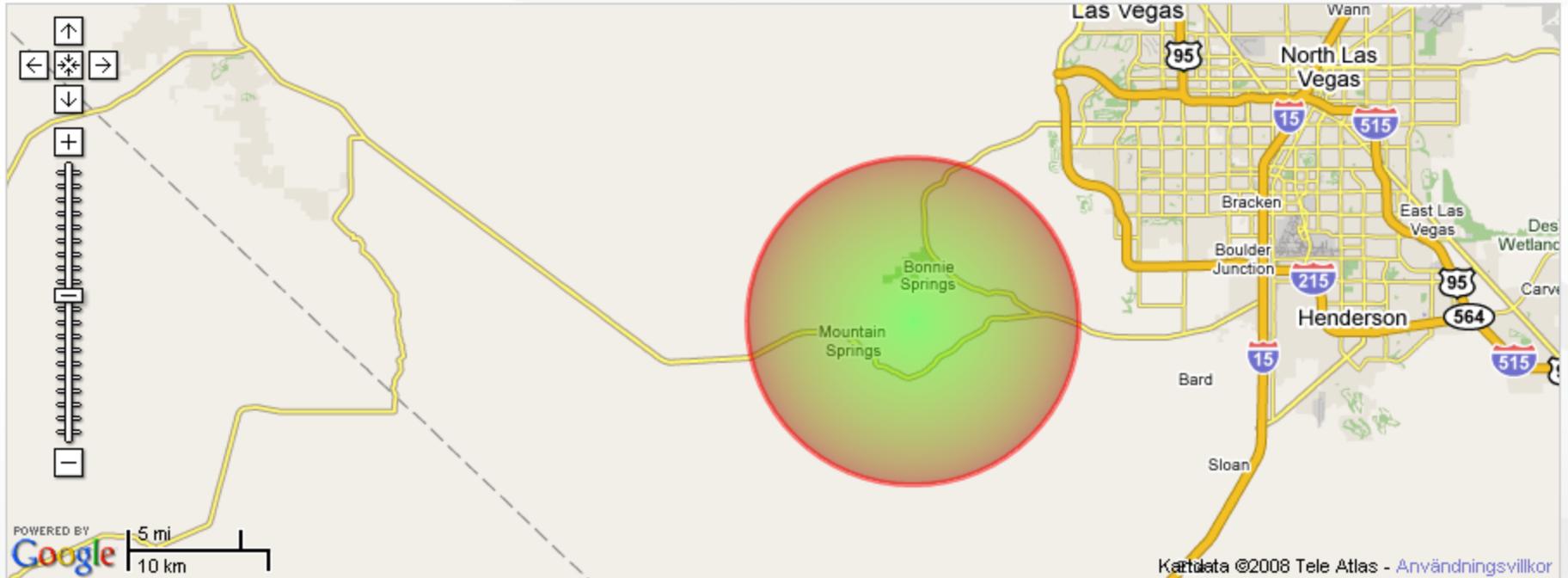
PARENTAL CONTROL

INSTR. MANUAL

## WHERE ARE MY CHILDREN?

HOW FAST HAVE THEY BEEN DRIVING? max 130 km/h

NOTIFY ME OF VIOLATIONS  SMS  E-MAIL



 HOME	 ME & MY CAR	 REMOTE CONTROL	 DEALER & SERVICE	 A WAY OF LIFE	 COMPANY CAR	 ROUTE PLANNING	 ABOUT	 MY PROFILE
MY CAR	CAR STATUS	ECO RATING	CAR LOCATION	PARENTAL CONTROL	INSTR. MANUAL			

## MY ECO RATING: 7.5

By using "My ECO Rating" you will increase your awareness of your driving patterns. You will get immediate feedback on features like fuel consumption, acceleration, braking and tire pressure after each trip. Driver rating statistics show the rating of the last 10 trips based on the values of the trip data providing you with unique information about the car as well as your driving skills. You may reduce your fuel consumption by as much as 10% and less fuel consumption means less emission. And while you are doing your share for the environment, you may save thousands of dollars.



### DRIVE DATA LAST TRIP

### TEN LATEST TRIPS

<b>Date/Time</b>	2008-01-08 19:10
<b>Environmental classification</b>	ULEV-II
<b>Emission CO2</b>	Good
<b>Fuel consumption</b>	10,5 litres/100 km
<b>Acceleration</b>	Average
<b>Braking</b>	Good
<b>Tire pressure</b>	2,3 bar
<b>Air filter</b>	Clean
<b>Weight</b>	1800 kg

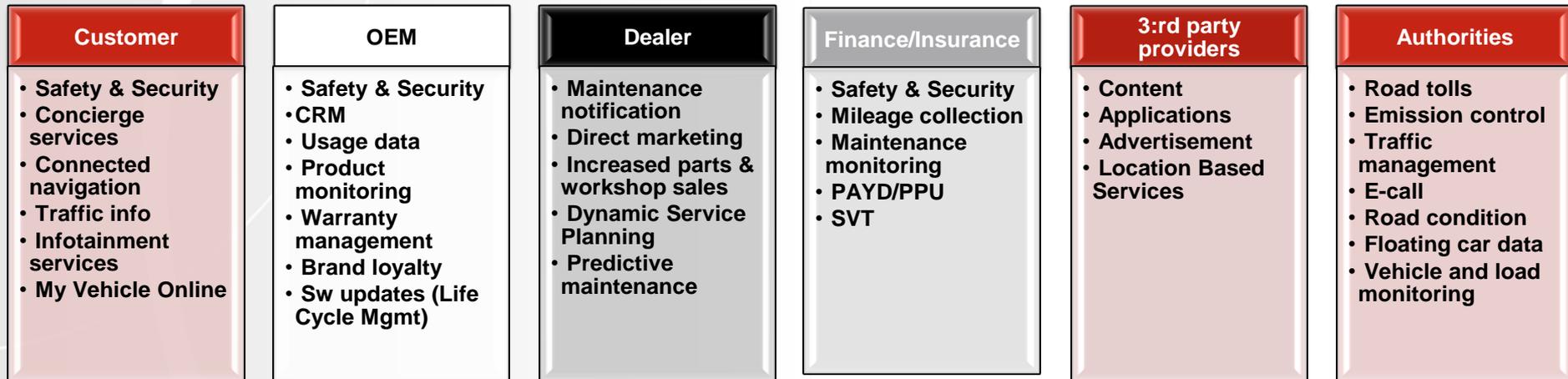
WirelessCar, based in Gothenburg, Sweden, is one of the world's leading telematics service providers serving both the automotive and commercial vehicle sectors with services that are operational in 33 countries on four continents. This truly global service can include automatic crash notification, emergency and road side assistance, stolen vehicle tracking, an embedded hands-free telephone, a car locator, remote door unlock, and remote diagnostics.

# The Telematics Business Case



The search for the holy grail or....

# Telematics - Value Chain



$$1 + 1 = 10$$