OEM eCall Strategies
31st January, 2017
Our Expertise

Connected
infotainment apps | remote services
car IoT | contextualization | telematics

Autonomous
sensors | advanced driver assistance
driver monitoring | V2X

Secure
cyber security | anti-theft | risk assessments | countermeasures
The state of the connected car today

OEM Trends

Today in Europe dedicated, embedded cellular modems are primarily fitted to premium brands.

<table>
<thead>
<tr>
<th>Services</th>
<th>Audi</th>
<th>BMW</th>
<th>FCA</th>
<th>Ford</th>
<th>GM</th>
<th>Honda</th>
<th>Hyundai</th>
<th>Infiniti</th>
<th>JLR</th>
<th>Kia</th>
<th>Lexus</th>
<th>Mazda</th>
<th>Mercedes-Benz</th>
<th>Mini</th>
<th>Mitsubishi</th>
<th>Nissan</th>
<th>Porsche</th>
<th>PSA</th>
<th>Renault</th>
<th>Smart</th>
<th>Subaru</th>
<th>Suzuki</th>
<th>Tesla</th>
<th>Toyota</th>
<th>Volvo</th>
<th>VW</th>
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<tbody>
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Source: SBD, OE Services Tracker (EU) 2016 Q4

The US is seen as three years ahead, and these OEMs are anticipate to increasingly deploy their technologies to other markets, such as Europe, sooner than later because of customer demand and internal business reasons.
Though OEMs are preparing to implement an eCall module to all EU-region passenger vehicles, it is important to recall that:

- This applies to new type approvals
- Automobile model cycles are usually four to six years

As a result, SBD anticipates that for the EU full penetration of embedded connectivity will occur in 2024 for new passenger vehicles.

This includes embedded connectivity limited solely to public eCall.
Influencing factors for OEMs

What drives OEMs?

Factors of influence:

• Public awareness
  ➢ Create customer demand through awareness campaigns

• Competitive pressure
  ➢ There is strong customer demand and key competitors apply it faster

• Risk
  ➢ Will there be any scrutiny or brand image risk (e.g. “naming and shaming”) for OEMs that delay?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Public eCall</th>
<th>Public eCall Factors</th>
<th>Private eCall</th>
<th>Private eCall Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a regulation?</td>
<td>Yes</td>
<td>Only required on type approval</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Will it sell more cars?</td>
<td>Unlikely</td>
<td>If customers demand/expect it</td>
<td>Unlikely</td>
<td>Only if customers demand/expect it due to public eCall “shortcomings”</td>
</tr>
<tr>
<td>Will it reduce cost?</td>
<td>No</td>
<td>N/A</td>
<td>No</td>
<td>N/A</td>
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</table>
Private eCall
The current OEM positions

Today

Five brands have been offering private eCall from before the public eCall decision:
- BMW
- VOLVO
- PSA GROUPE

Since, seven additional brands have started offering private eCall:
- Volkswagen
- Land Rover
- GM
- Mercedes-Benz
- Porsche

The rest are waiting.

Early Adopters
Recent Converts
Observers

If success of a technology or service is defined by others copying or following your lead, private eCall has had limited success.

Post-2018 Decision

Public eCall
- Lower cost
- “Tick the box”

Private eCall
- Improved coverage (unprepared countries)
- Language (customer expectations)
Some OEMs are seeking to make cars as safe as possible, one example is Volvo aiming for “zero deaths” in traffic accidents by 2020. That said, the price of such vehicles will remain out of reach for many consumers.
Connectivity behaviour
The three main options open to carmakers

1. How will OEMs delineate their core connected car services vs. public eCall?

<table>
<thead>
<tr>
<th>Type of connectivity</th>
<th>Paid SIM</th>
<th>Public SIM</th>
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<tbody>
<tr>
<td>Private eCall + Public eCall + Value Added Services</td>
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<tr>
<td>Public eCall + Value Added Services</td>
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<td></td>
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<tr>
<td>Public eCall</td>
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</tbody>
</table>

Value added services include features such as information call, remote door lock/unlock, car finder, etc.

2. Complimentary service periods are increasing, how will OEMs offering private eCall switch from their suite of services to public eCall when the term expires?

<table>
<thead>
<tr>
<th>Complimentary Connected Services Periods (Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was</td>
</tr>
<tr>
<td>Now</td>
</tr>
<tr>
<td>Was</td>
</tr>
<tr>
<td>Now</td>
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</table>