

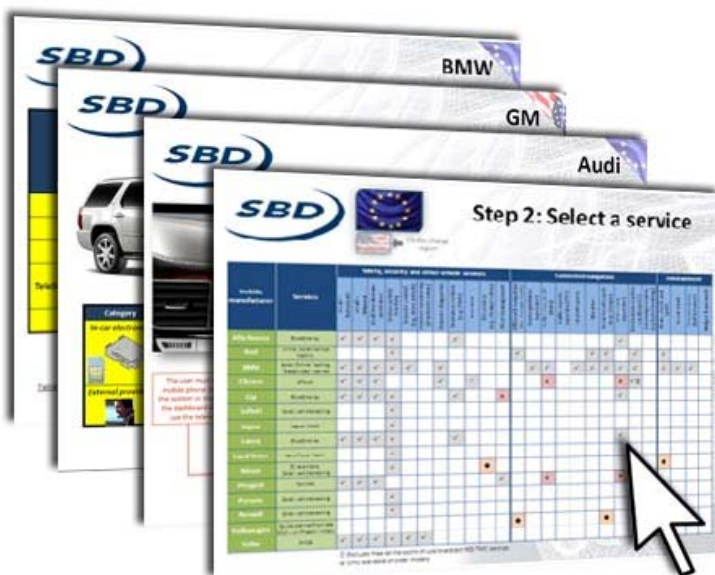
# The complete guide to telematics in Europe and the USA



## The ultimate resource for OE telematics in Europe and the USA...

SBD has been at the forefront of monitoring, analysing and advising our clients on the latest trends and strategies for launching telematics services globally for over 14 years. Each year we produce an annual survey of vehicle manufacturers' telematics solutions. This enables our clients to not only understand the available services in detail, review supplier choices and compare service features but also to pin-point the critical success factors, likely reasons for failure and to benchmark their own offerings against competitors.

In 2010, for the first time, we've created this annual report in an interactive, presentation format. This allows a vast quantity of market and technical information to be found in one easy-to-use source. This unique format allows users to switch rapidly between top-level market overviews and detailed architecture diagrams of specific services by simply clicking on the relevant hyperlinks.



## The key features of SBD's 270 page guide to telematics services include:

- All available services by vehicle manufacturer in Europe and the USA
- Clear explanations and definitions of telematics services
- Overview of system architectures including suppliers, user interface and simplified electrical schematics
- Summary of geographical availability, business model and pricing
- Communication and infrastructure flow diagrams for each manufacturer's services

For additional information please email [jappleby@sbd.co.uk](mailto:jappleby@sbd.co.uk) or telephone Juanita on +44 (0) 1908 305101 and she will be happy to deal with your enquiry.



## »» All the information you need in one place...

After many years of slow growth within the telematics industry, vehicle manufacturers are beginning to accelerate the launch of new services in order to meet consumer expectations for a connected in-car experience. Over 130 services are now offered by 22 brands in Europe and the USA. Many more services are planned for the next year, both by vehicle manufacturers that have traditionally been telematics leaders as well as new entrants to the market.

One of the main challenges for vehicle manufacturers is that there are still very few similarities in how all of these services are implemented. They use different suppliers, service providers and service architectures. They are offered to customers in different ways and across different markets. Even services that may appear simple to the end-user often have a complex and extensive service value chain running in the background.

Without a comprehensive and easy-to-use benchmark of these different approaches, key stakeholders within the telematics industry will be unable to learn many of the key lessons and consequently face higher risks when deciding their own strategic direction. SBD's interactive guide overcomes this challenge by providing a comprehensive analysis of how vehicle manufacturers have implemented their services. This guide ensures that users will never have to look elsewhere for the facts and details relating to OE telematics services in Europe and the USA.

SBD's **Complete Guide to Telematics in Europe and the USA** has an intuitive user interface which allows a considerable amount of market and technical information to be included within a single document, whilst ensuring that the data is still easy to access, search and extract.

The unique format allows users to rapidly switch between top-level market overviews and the detailed structure of individual services by simply clicking on the relevant manufacturer name or the specific service of interest.

The look and feel of the document, and the level of information presented, is illustrated in the following figures.

**Step 2: Select a service**

| Vehicle manufacturer | Service        | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|----------------------|----------------|------|------|------|------|------|------|------|------|------|------|
| Acura                | Emergency call |      |      |      |      |      |      |      |      |      |      |
| Alfa Romeo           | Emergency call |      |      |      |      |      |      |      |      |      |      |
| Audi                 | Emergency call |      |      |      |      |      |      |      |      |      |      |
| BMW                  | Emergency call |      |      |      |      |      |      |      |      |      |      |
| Citroen              | Emergency call |      |      |      |      |      |      |      |      |      |      |
| Fiat                 | Emergency call |      |      |      |      |      |      |      |      |      |      |

### 22 BRANDS

|            |          |               |            |
|------------|----------|---------------|------------|
| Acura      | Ford     | Land Rover    | Toyota     |
| Alfa Romeo | GM       | Mercedes Benz | Volkswagen |
| Audi       | Infiniti | Nissan        | Volvo      |
| BMW        | Jaguar   | Peugeot       |            |
| Citroen    | Kia      | Porsche       |            |
| Fiat       | Lancia   | Renault       |            |

**AutomaticCall**

- The purpose of an automatic eCall system is to facilitate a fast response from the emergency services to a vehicle crash requiring their attention.
- When a crash occurs (the TCU typically receives an input from the airbag ECU to confirm a crash has occurred) the TCU automatically transmits data, including last known GPS coordinates, and initiates a voice call to the relevant receiver.
- In Europe, the EC is pushing for a Public eCall solution where voice calls are routed directly to the local PSAP (see figure) and there are common standards for the data content and format.
- Vehicle manufacturers with existing services use Private eCall, where the voice and data calls are routed via a Telematics Service Provider (TSP).

### 23 SERVICES

|                   |                    |                 |                  |
|-------------------|--------------------|-----------------|------------------|
| eCall / bCall     | Remote diagnostics | Off-board navi  | Concierge        |
| SVT               | Eco-drive          | Traffic reports | News services    |
| Remote control    | EV services        | Car park spaces | In-car email     |
| Remote monitoring | Fleet management   | Weather         | Internet access  |
|                   |                    | POI search      | Widget framework |
|                   |                    | Send-to-car     |                  |

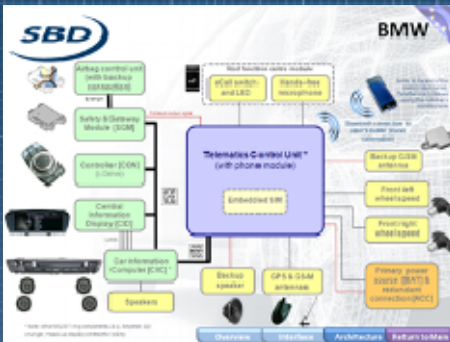
# »» ...know what tomorrow brings

| Category            | Component        | Supplier  |
|---------------------|------------------|---|
| On-car electronics  | Network operator | T-Mobile  |
|                     | ECM module       | Continental   |
| External components | Telematics ECU   | Continental ID  |
|                     | Call Center(s)   | SE, Munich; Europe Assistance, Berlin; Call Center(s) |
|                     | Service Provider | AT&T / Innescar ID                                    |

**Traffic information**  
(One-way broadcast service)  
• RDS-TMC over FM radio

**Telematics services**  
(Two-way GSM services using embedded communications)  
• Assist (DMS)  
• Callbox (GPS/EDGE)  
• Teleservice (Remote diagnostics) ID  
• Internet (GPS/EDGE)  
• SVT (Italy only, GPS)  
• Call center for home, mobile and landline ID  
• Call center for emergency customer's phone ID

**50 system and service providers**  
 TCU suppliers  
 Telematics service providers  
 Mobile network operators  
 Phone module suppliers  
 Call centre operators



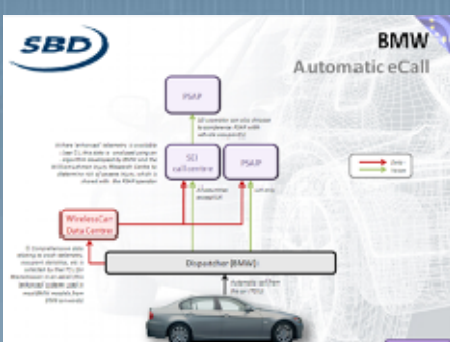
**System architecture diagrams**  
 CAN/MOST links  
 Redundancy features, including back-up battery, antenna and speaker

| Service name    | Customer protection | Communication method      |                 | Pricing  |                     |  |                  |      |
|-----------------|---------------------|---------------------------|-----------------|--|---------------------|--|------------------|------|
|                 |                     | Unlimited (minutes/bytes) | Customer option | Initial cost   | Initial free period | Ongoing subscription cost (after free period)            | Pay-per-use cost |      |
| Local & Roaming |                     | ✓                         | ☐               | 100 minutes (local & roaming)<br>100MB (local & roaming) | None                | 100 minutes (local & roaming)<br>100MB (local & roaming) | None             | None |
| Online          |                     | ✓                         | ☐               | 100 minutes (local & roaming)<br>100MB (local & roaming) | None                | 100 minutes (local & roaming)<br>100MB (local & roaming) | None             | None |
| Internet        |                     | ✓                         | ☐               | 100 minutes (local & roaming)<br>100MB (local & roaming) | None                | 100 minutes (local & roaming)<br>100MB (local & roaming) | None             | None |

**Pricing plans & business models**  
 Initial cost  
 Initial free period  
 Ongoing subscription cost  
 Pay-per-use cost  
 Differences in price plans

| Service name | Austria | Coverage by country |        |         |       |       |        |             |    |     |       |   |   |   |   |
|--------------|---------|---------------------|--------|---------|-------|-------|--------|-------------|----|-----|-------|---|---|---|---|
|              |         | Belgium             | France | Germany | Italy | Spain | Sweden | Switzerland | UK | USA | Other |   |   |   |   |
| Local        | ✓       | ✓                   | ✓      | ✓       | ✓     | ✓     | ✓      | ✓           | ✓  | ✓   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Online       | ✓       | ✓                   | ✓      | ✓       | ✓     | ✓     | ✓      | ✓           | ✓  | ✓   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Roaming      | ✓       | ✓                   | ✓      | ✓       | ✓     | ✓     | ✓      | ✓           | ✓  | ✓   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Teleservice  | ✓       | ✓                   | ✓      | ✓       | ✓     | ✓     | ✓      | ✓           | ✓  | ✓   | ✓     | ✓ | ✓ | ✓ | ✓ |
| Internet     | ✓       | ✓                   | ✓      | ✓       | ✓     | ✓     | ✓      | ✓           | ✓  | ✓   | ✓     | ✓ | ✓ | ✓ | ✓ |

**Coverage (for European services)**  
 Service coverage  
 Roaming coverage  
 Planned coverage



**Service infrastructure diagrams**  
 Voice and data flows for each service  
 Service triggers  
 Servers and databases  
 Link with 3rd parties (e.g. PSAPs & content providers)  
 Split between in-house solutions and out-sourcing

# The SBD Mission...

... to provide our customers with the knowledge, insight and understanding they need to develop class leading Telematics and Vehicle Security products and improved Cost Of Ownership performance

## About the report author...



**Paul Burnley – Senior ITS and Telematics Specialist**

Paul graduated from the University of Surrey with a Masters degree in Electrical and Electronic Engineering. He has worked with a number of leading suppliers developing cutting-edge automotive electronics. His strong technical background makes him an expert in investigating the operation of in-car and off-board systems, particularly in telematics and connectivity. Paul's research covers both mature and emerging markets and he is widely regarded as Europe's foremost expert for tracking legislation in Brazil.

## Pricing:

| Report  | Electronic pdf copy  |
|---|----------------------|
| 2900 - The complete guide to telematics in Europe and the USA | £1600/ €2000/ \$3200 |

For a quotation or further information please contact Juanita Appleby on:

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## Related Reports



### Getting ready for public eCall

This report analyses what will happen following the likely introduction of a mandate by the EC forcing vehicle manufacturers to equip all new cars with eCall. In addition to assessing the readiness of PSAPs to support public eCall, this report provides a strategic analysis of how vehicle manufacturers are likely to respond to the regulation.

**Reference SBD/TEL/2401**



### Analysis of the telematics value chain for private eCall

This report analyses the service value chain for private eCall, outlining who the key players are and how they are adapting their services to remain competitive.

**Reference SBD/TEL/2402**



### European Telematics Sales Forecasts

This sales forecast provides a unique hype-free 10-year projection for the volume and fitment of telematics systems sold, broken down into the following specific applications: eCall, bCall, Remote diagnostics, SVT, PAYD, EV telematics, connected navigation and connected entertainment.

**Reference SBD/TEL/2403**