Towards a Global System for Telematics

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Outline

- 3GT (Third Generation Telematics)
  - Concept
  - Overview of tests
  - Dissemination
- GST (Global System for Telematics)
  - Vision
  - Objectives
  - Outlook
Basics

Duration: June 2002 – November 2003 (18M)

Partners:
- Car makers
- Terminal manufacturers
- Control centre operators
- Middleware providers
- Service providers
- Others

Belgium, France, Italy, Germany, Sweden, The Netherlands
Objective: open telematics market
Beyond the walled garden
Benefits

2GT Fixed Services

- Fixed service portfolio
- No upgrade path
- Low perceived value
- New service = new development

3GT Open Configurable Services

- Unlimited "virtual" service portfolio
- End user configured download
- Subscribe / upgrade on-demand
- High Perceived Value ➔ Revenue
## Overview of tests

<table>
<thead>
<tr>
<th>Terminal types</th>
<th>Acunia CarCube (Fiat, Opel, PSA)</th>
<th>BMW CC</th>
<th>Gate-space CC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMW terminal</td>
<td>On-going</td>
<td></td>
<td></td>
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<tr>
<td>Bosch On-line Pilot</td>
<td>On-going</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volvo PDA</td>
<td>On-going</td>
<td>Not planned</td>
<td></td>
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</tbody>
</table>

| Control Center Types |
|----------------------|----------|----------|
| Acunia CC            | BMW CC   | Gate-space CC |

"Not planned" indicates that the test is not planned.
Key dissemination material

- Brochure
- White paper
- CD-rom
3GT Forum

- Level of involvement up to individual member
- Automatically receive deliverables and newsletters
- Give input and comments to draft and final deliverables
- Participate in 3 workshops
### Participation

- Currently 78 members from 61 organisations

<table>
<thead>
<tr>
<th>ACUNIA</th>
<th>INTELLIGENT HIGHWAY</th>
<th>PTV</th>
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</thead>
<tbody>
<tr>
<td>AIT - FIA</td>
<td>ISMB</td>
<td>RENAULT</td>
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<td>ALPINE</td>
<td>JST EUROPE</td>
<td>SAAB</td>
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<td>ARUN</td>
<td>JOHNSON CONTROLS</td>
<td>SECARTIS</td>
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<td>BLAUPUNKT</td>
<td>LOCATIONET</td>
<td>SECURED BY DESIGN</td>
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<tr>
<td>BMW</td>
<td>MECEL</td>
<td>SIEMENS VDO</td>
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<tr>
<td>BOMBARDIER</td>
<td>MIZAR MEDIA SERVICE</td>
<td>SONERA</td>
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<tr>
<td>BOSCH</td>
<td>MOBILEGIS</td>
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<td>CMG</td>
<td>MOTOROLA</td>
<td>T-MOBILE TRAFFIC</td>
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<td>NAVTECH</td>
<td>T-LEATLAS</td>
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<td>DELPHI</td>
<td>NORWEGIAN TRANSPORT</td>
<td>TNO</td>
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<td>ERICSSON</td>
<td>ORANGE</td>
<td>VALEO</td>
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<td>ERTICO</td>
<td>OSGI</td>
<td>VODAFONE</td>
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<tr>
<td>EUROPEAN COMMISSION</td>
<td>PANASONIC</td>
<td>VOLVO</td>
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<tr>
<td>FIAT (CRF)</td>
<td>PHILIPS</td>
<td>WEBRASKA</td>
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<tr>
<td>FRANCE TELECOM</td>
<td>PIONEER</td>
<td>WELSH ASSEMBLY</td>
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<tr>
<td>GATESPACE</td>
<td>POLITECNICO DI TORINO</td>
<td>WIRELESS CAR</td>
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<tr>
<td>GM/OPEL</td>
<td>PROSYST</td>
<td></td>
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<tr>
<td>IBM</td>
<td>PSA</td>
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Dissemination ITS World Congress Madrid (16-20.11.2003)

- Preparatory articles in:
  - ITS@ertico (Madrid congress copy)
  - Telematics Update
  - Traffic Technology Int’l (Madrid congress copy)

- Presentations
  - 3GT Forum Validation Workshop
    - Specifications and White Paper sent to Forum Members
    - 20.11.2003, 2.00-4.30 pm
    - h.sturesson@mail.ertico.com
  - 2 presentations in special session SS06 (Open platforms enabling new telematics services) on 17.11.2003
  - 2 presentations in technical session PS053 (New cellular technologies) on 17.11.2003
  - Demonstrations at EC stand, BMW stand and live demo area from 17-20.11.2003
Vision

• All future vehicles equipped with various communication means to interact with each other and their environment based on a common architecture and standard interfaces.

• Drivers and occupants will be able to rely on their on-board, integrated telematics system to access a dynamic offer of on-line safety-, efficiency- and comfort-enhancing services wherever they drive in Europe.

• Access to portfolio of services provided by different service providers throughout Europe with one single system, one single contract and one single invoice.
Objectives

Four technology-oriented sub-projects aim at supporting a horizontal market for on-line services by creating:

- **Open Systems**: Enabling co-operation and infrastructure sharing between all sectors.
- **Security**: Protection of system and its data, privacy and reliability
- **Service Payment**: Common approach for payment and billing
- **Certification**: Promoting rapid service deployment onto the market

Three service-oriented sub-projects aim at helping to bring some key safety and market-enabling service to the market:

- **Rescue**: Closed loop including emergency vehicle to help bring e-call as standard feature in future cars
- **Enhanced floating car** data uploads and **safety channel** broadcast/downloads to allow wide range of safety-enhancing and added value services.
Technology-oriented sub-projects (1)

Open Systems:
Develop architecture to support GST vision, as illustrated in figure.

Approach:
• Initiate, facilitate, steer & coordinate work in the different sub-projects.
• Coordinate test site activities.
• Develop generic building blocks, not covered by sub-projects, that increase seamless inter-working of on-line services
Technology-oriented sub-projects (2)

**Security**: Openness also implies potential for undesired access. The sub-project addresses protection of the system and its data, customer privacy and system reliability. The objective is to design an overall security and trust architecture approached from both the user as well as the technology perspective.

**Service Payment**: Develop a proven and tested payment & billing architecture for telematics. Attention paid both to end-user but also to cross-charging between content and service providers, and service aggregators.

**Certification**: Specify, develop and assess a certification organisation and process for telematics components, systems and services, to enable their rapid introduction to the market.
Service-oriented sub-projects (1)

**Rescue**

- Complete in-vehicle emergency call by including emergency vehicle in the chain
- Ensure accident information is available in emergency vehicle
- Guide emergency service by accurate routing information
- **Blue corridor system:** Warning road users of approaching emergency vehicle
- **Coning system:** Warning approaching road users of accident
Service-oriented sub-projects (2)

Safety Channel
Creating virtual priority transmission channel alerting drivers in real-time of incidents & safety related info (e.g. speed alert, hazards, routing,..)

Work involves developing:

- End-to-end architecture for creating, managing & delivering safety information to drivers
- Specifications for message packaging and management
- Specifications for message creation, data dictionaries for language independence.
- Specifications to enable diffusion in parallel to range of broadcast bearers as well as non broadcast bearers (e.g. GSM, UMTS, etc)

Enhanced Floating Car data
Support for generation and exchange of floating car data as standard on all vehicles. Requires attention to resolving the generation of high quality data and reduction of cost.
Outlook

**Some current trends/visions:**

- Reduction of traffic fatalities via emergency assistance services
- Breakdown assistance with rapid response, on-road repair
- Reduction in accident frequency through active (in-vehicle) speed/road advisories
- Moving vehicles as “floating car data” probes for traffic monitoring and real-time traffic management
- Freight and fleet management
- In-vehicle “real time” driver education and error correction
- Monitoring/route tracking of hazardous vehicles
- Road charging
- Many others
Questions?