Telematics: Definition

Services delivered to the mobile user with a specific focus on, or a particular added value in an automobile environment.

BMW ConnectedDrive “Translation”: An innovative concept which interconnects information, communication and assistance systems inside and outside the vehicle, location based and destination oriented.
Challenges: The Networked Vehicle

Service Deployment
- Interact with Provisioning
- Federation
- Certification

Service Provisioning
- Service Registration
- Service Discovery
- Service Activation
- Security

Vehicle Infrastructure
- Physical Bus-Systems
- ECU-Ontology

In-Vehicle Platform
- Low-End or High-End
- OS / Middleware
- Nomadic Device Integr.

OSS
- Billing
- Payment
- AA

Services
- Service Harmonization
- Protocols
- Security

Bearer Infrastructure
- GSM / GPRS
- UMTS
- DAB / DVB
- Bluetooth / WLAN
Telematics Services Tomorrow

- Navigation/Traffic
  - Dynamic Navigation
  - Traffic Management
  - Hybrid Navigation

- V2HotSpot
  - Local Information

- M-Commerce
  - shopping
  - banking business
  - other services

- Nomadic Device
  - Hybrid Navigation
  - Standardized e-Call
  - Entertainment (e.g. MP3)

- Standardized e-Call

- V2V/Cellular/Broadcast
  - Accident/Hazard Warning

- Fleet Management

- Telediagnostics

- Driver Assistance
  - e.g. Safety-Hot Spot

- Vehicle Management

- Car-Independent

- Car-Dependent
Open Questions

- What kinds of services will people expect to see?
- How will users, vehicles and infrastructure be represented in such a dynamic model?
- How will these systems be administered and managed?
- Can advanced computational models bring value to the Telematics ecosystem?
- How will the asynchronous and potentially transient nature of communication be addressed?
- How can we ensure security in such a dynamic world?

The OSGi Service Platform

- Service Oriented Architecture
- Life-cycle Management
- Collaboration
- Open Management Architecture
- Very highly dynamic

Designed to enable an entirely new category of smart devices with flexible and managed deployment of services, the OSGi Service Platform offers an open, common architecture for service providers, developers, software vendors, gateway operators and equipment vendors to develop, deploy and manage services in a coordinated fashion.
Overall Architecture

- Hardware
- Driver
- Driver
- Driver
- Operating System
- Java
- OSGi Framework
- Bundle
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Thanks for listening