

OSGi in the Automotive Environment



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An SAIC Company



Telematics: Definition



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

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

OSS

- Billing
- Payment
- AA

Telematics

Services

- Service Harmonization
- Protocols
- Security

In-Vehicle Platform

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

Bearer Infrastructure

- GSM / GPRS
- UMTS
- DAB / DVB
- Bluetooth / WLAN



Telematics Services Tomorrow



V2HotSpot

- Local Information

M-Commerce

- shopping
- banking business
- other services

Navigation/Traffic

- Dynamic Navigation
- Traffic Management
- Hybrid Navigation

Fleet Management

Standardized e-Call

V2V/Cellular/Broadcast

Accident/Hazard Warning

Nomadic Device

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

Telediagnostics

Driver Assistance e.g. Safety-Hot Spot

Vehicle Management

Car-Dependent

Car-Independent



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 <u>ensure</u> security in such a dynamic world?

Open Competition: See http://www.gstforum.org/ for more information



The OSGi Service Platform



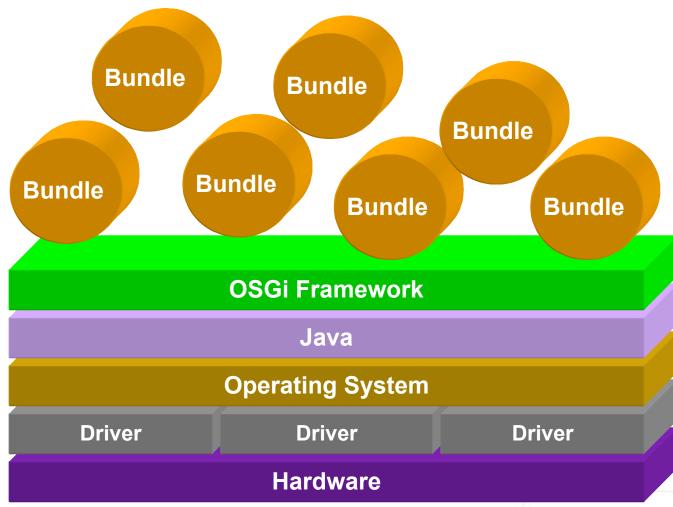
- Service Oriented Architecture
- Life-cycle Management
- Collaboration
- Open Management Architecture
- Very highly dynamic

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









Thanks for listening