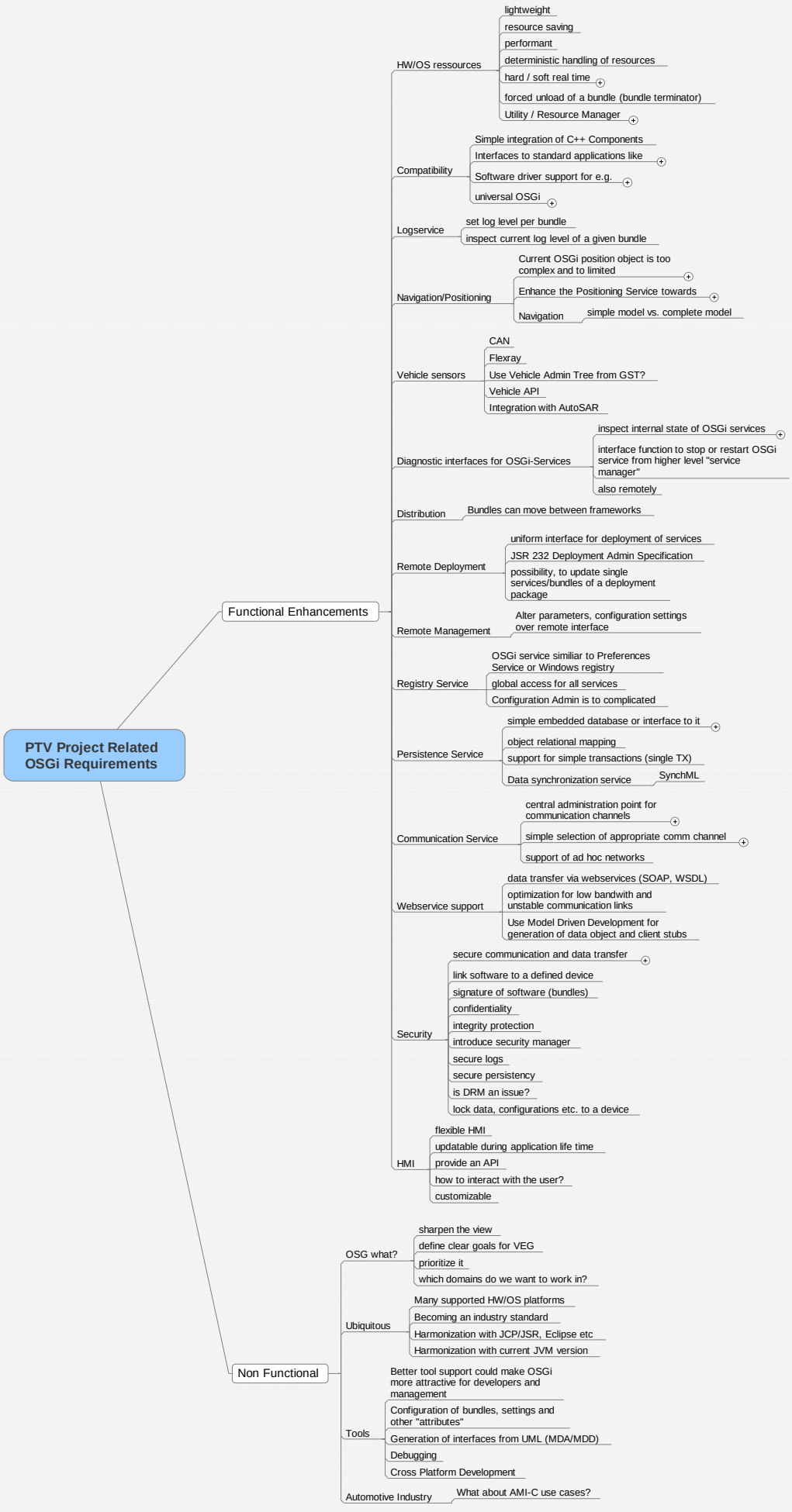
PTV Project Related OSGi Requirements
Functional Enhancements
HW/OS ressources
lightweight
resource saving
performant
deterministic handling of resources
hard / soft real time
forced unload of a bundle (bundle terminator)
Utility / Resource Manager
Compatibility
Simple integration of C++ Components
Interfaces to standard applications like
Software driver support for e.g.
universal OSGi
Logservice
set log level per bundle
inspect current log level of a given bundle
Navigation/Positioning
Current OSGi position object is too complex and to limited
Enhance the Positioning Service towards
Navigation
simple model vs. complete model
Vehicle sensors
CAN
Flexray
Use Vehicle Admin Tree from GST?
Vehicle API
Integration with AutoSAR
Diagnostic interfaces for OSGi-Services
inspect internal state of OSGi services
interface function to stop or restart OSGi service from higher level "service manager"
also remotely
Distribution
Bundles can move between frameworks
Remote Deployment
uniform interface for deployment of services
JSR 232 Deployment Admin Specification
possibility, to update single services/bundles of a deployment package
Remote Management
Alter parameters, configuration settings over remote interface
Registry Service
OSGi service similiar to Preferences Service or Windows registry
global access for all services
Configuration Admin is to complicated
Persistence Service
simple embedded database or interface to it
object relational mapping
support for simple transactions (single TX)
Data synchronization service
SynchML
Communication Service
central administration point for communication channels
simple selection of appropriate comm channel
support of ad hoc networks
Webservice support
data transfer via webservices (SOAP, WSDL)
optimization for low bandwith and unstable communication links
Use Model Driven Development for generation of data object and client stubs
Security
secure communication and data transfer
link software to a defined device
signature of software (bundles)
confidentiality
integrity protection
introduce security manager
secure logs
secure persistency
is DRM an issue?
lock data, configurations etc. to a device
HMI
flexible HMI
updatable during application life time
provide an API
how to interact with the user?
customizable
Non Functional
OSG what?
sharpen the view
define clear goals for VEG
prioritize it
which domains do we want to work in?
Ubiquitous
Many supported HW/OS platforms
Becoming an industry standard
Harmonization with JCP/JSR, Eclipse etc
Harmonization with current JVM version
Tools
Better tool support could make OSGi more attractive for developers and management
Configuration of bundles, settings and other "attributes"
Generation of interfaces from UML (MDA/MDD)
Debugging
Cross Platform Development
Automotive Industry
What about AMI-C use cases?