LSP – concept and implementation

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LSP concept

- LSP (Land Side Platform)
  - Concept for cooperative data communication
  - Proactive crash avoidance
- Long-term communication vision
  - Vehicle connectivity
  - Lifetime support from vehicle manufacturers
  - Vehicle safety applications
- Role of Connexis
  - Provide backbone infrastructure
  - Enable integration of various products and services

LSP vision

- LSP is a new approach to vehicle data communication
  - Developed by a partnership of vehicle manufacturers
  - Safety data communication as its primary goal
  - Structured to meet the needs and interests of participating vehicle manufacturers and the purchasers of their vehicles
  - Separates vehicle-centred and vehicle manufacturer functions/applications from driver/user applications
  - Uses a new generation data communication unit (DCU)
  - Will become a connectivity and message-routing utility controlled by vehicle manufacturers

LSP application areas

- Automatic crash notification (ACN)
  - Connect to ACN centres that call local PSAPs (public safety answering points)
  - Direct connection to advanced PSAPs
- Probe data: vehicles are able to serve as data probes providing
  - Road condition updates
  - Micro-weather information
  - Current traffic information
- Tunnelled connectivity with vehicle manufacturer operations
  - Remote diagnostics
  - Customer data
- Connection to approved information, service providers' operations and computer centres
  - Stolen vehicle tracking
  - Remote operations
  - Fleet management

LSP requirements

- Support for existing vehicle telematics equipment
- Protocol conversion to
  - Interface to all equipped vehicles, allowing support of each vehicle manufacturer's previous, current, and future vehicles
  - Interface to vehicle manufacturer computer systems allowing IT systems to be designed independently and updated time by time
- Route data messages between equipped vehicles and land-side operations
- Must always be
  - Reliable and thoroughly tested
  - Truly modular (clean functional separation)
  - Future proof

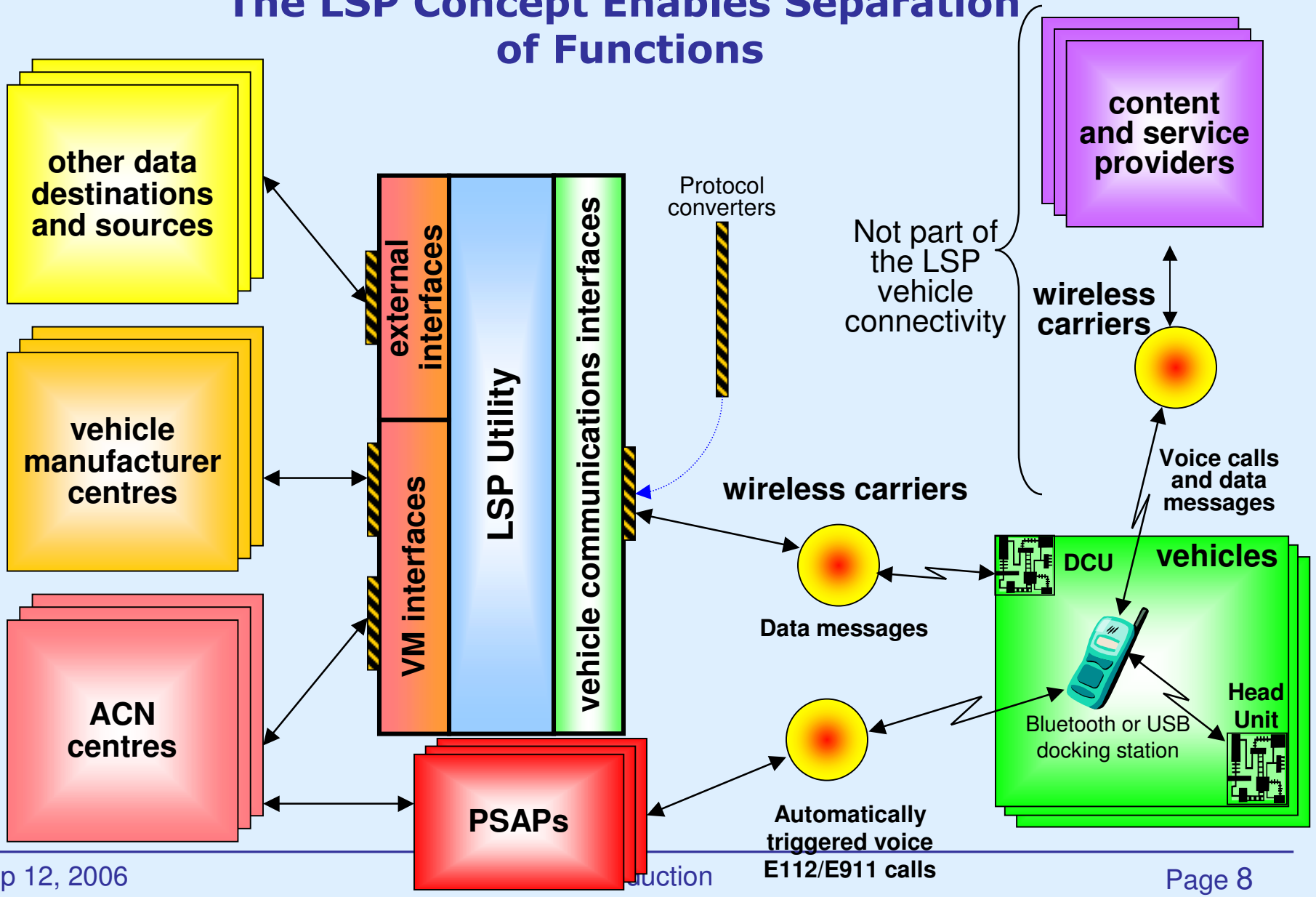
LSP components

- Main components
  - In-vehicle unit – by tier one suppliers
  - LSP utility – by Connexis
  - Add-on applications – by third party vendors
- In-vehicle hardware is a vehicle manufacturer decision
  - Tier one supplier
  - Data communication unit (DCU) functionality
  - Wireless connectivity features
  - Over time, the DCU can become separate from in-vehicle applications and user interfaces
- The potential LSP utility could
  - Promote development of common specifications
  - Enable a consistent approach

LSP business model

- Focus on vehicle- and vehicle manufacturer-centred applications
  - Driver/user-centred applications should be handled by personal communication devices (PCD)
- Keep communication costs low by using data messages only, and registering the DCU only when there is a message to send or receive
- The only exception is ACN messages for which standards bodies have agreed to provide a way to transmit ACN data messages without registration
- Provide basic connectivity/support for the vehicle for its entire service life by a manageable charge at its original purchase price
- Deliver connectivity in the name of the vehicle manufacturer
- Take a long-term view to profitability (10+ years)

The LSP Concept Enables Separation of Functions

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