

Professional Location-Based Services 2002

Executive Summary

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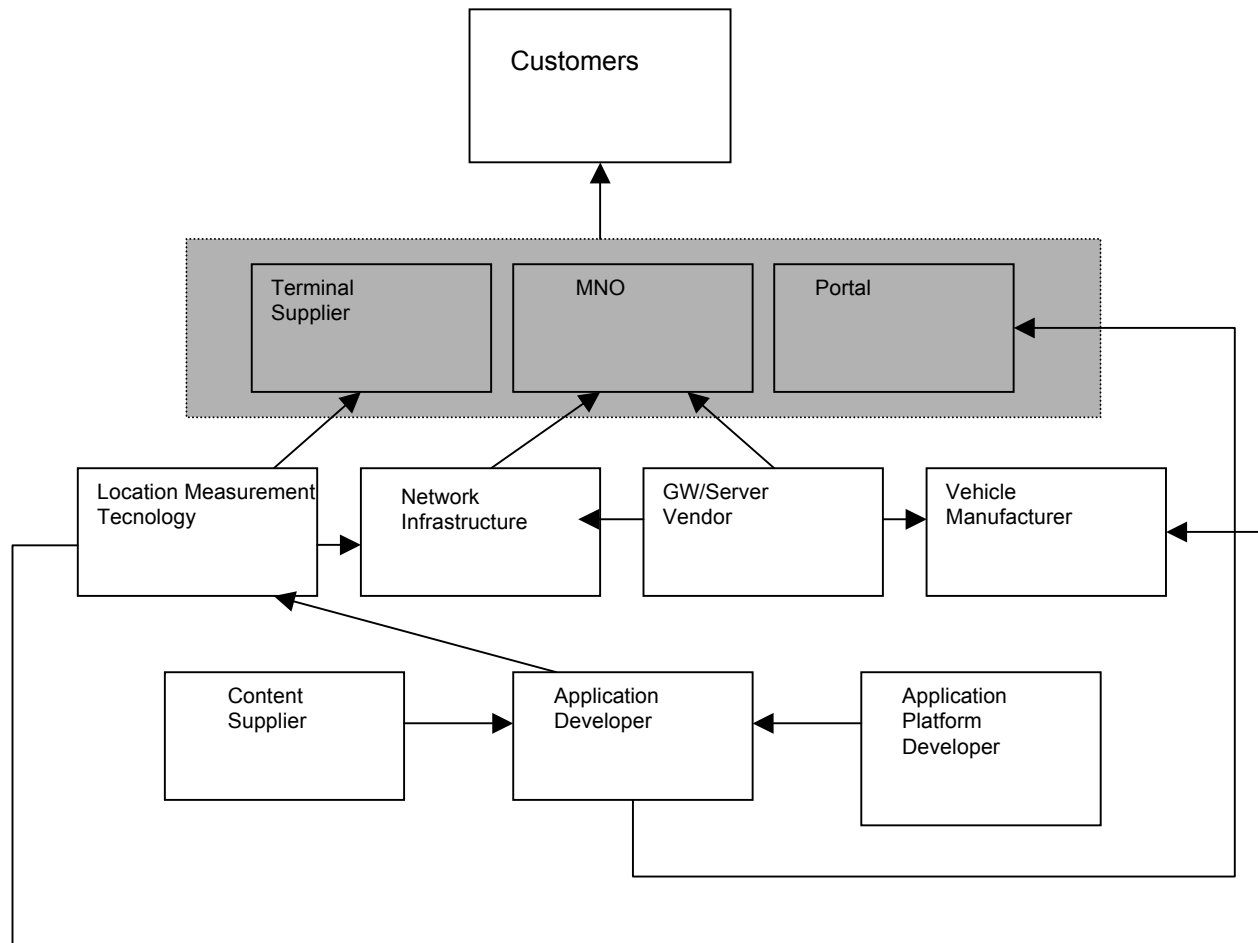
Framework

- Market status
- Value chain description
- Solutions
- Primary players
- Business models

LBS Value Chain

- Complex inter-relationships
- Current players overlap each other in meeting demand and also supply each other
- Value creation in professional market focus on tracking solutions
- Value creation in consumer market: location-based info services show potential among early adopters
- No consensus on business models; no consensus on role of MNO
- Uncertainties about business/revenue models and unresolved technology issues slow market take-up

LBS Value Chain



LBS Solutions

- Professional
 - Fleet Management
 - Tracking
 - Vehicle, Asset, and People
- Consumer
 - Tracking
 - Find a friend/Mobile communities, Routing, Gaming
 - Localised information
 - Nearest service, Traffic Information, Weather Information, Tourist Information

European Market Perspective

- Driven by technology "push"
- Professional market dominated by few automatic vehicle location vendors
 - High barrier to entry, most systems based on proprietary technology
 - Demand restricted to small number of large companies
- Consumer market: little evidence of mass acceptance or willingness to pay premium
 - Roadmaps more concerned with implementations into next generation networks, than with new services
- Mixed views on scalability of market development; also current slow down in telecommunication market has effects.
 - Estimate of approximately \$5.2 billion revenue in 2005.

European Market Perspective

- Business models based on who controls flow of location information, service revenues, application, and content
- Regulatory requirements act as barrier and driver to market development
- LBS not covered explicitly by 97/66/CE Directive (under revision)
- Privacy issues: Opt-in/Opt-out (explicit/implicit) consent to make location data available
- New EU telecom framework suggest July 2003 as target for MNOs to enable e-112, but no definition of level of location accuracy

United Kingdom

- Professional LBS historically strong in the transportation sector with focus on "performance monitoring".
- Professional solutions
 - Fleet Management
 - Tracking
 - Location-based Data Collection and Delivery
- Tracking (e.g. to recover stolen vehicles) has most potential for consumer market adaptation; potential growth areas are asset management and data collection and delivery
- Forecast: up to 1.5 Billion Euros in 2005

United Kingdom

- Revenue sources: software licensing, maintenance, application/content usage
- Active players
 - Webraska
 - Vodafone
 - IT IS
 - Minorplanet
 - Thales
 - Euteltracs
 - Trafficmaster

Germany

- Market in early stage; solutions geared toward Fleet Management and Vehicle-centric navigation systems
- Classification of services(Tracking, Pull, Push)
- Revenue sharing between MNOs and 3rd parties still in pilot mode; more attractive models are required for market development
- ETC Consortium potential driver for German market
- More clear data privacy protection could benefit the market

Germany

- Revenue sources: software licensing, maintenance, application/content usage
- Active players
 - Vodafone Passo
 - Tegarón Telematics
 - Daimler Chrysler FleetBoard
 - Aventeón
 - Brodos
 - Condat
 - ComROAD

Italy

- Market development lagging 12 months behind Northern Europe; wait and see attitude has slowed down development
- Proof-of-concept LBS projects currently on hold due to weak general market sentiment
- Classification of services (Tracking, Pull, Push)
- Specialised Solution Vendor has key role in the professional LBS value chain
- Customers: transport companies (main); potential – armed forces, finance, and police.

Italy

- Revenue sources: software licensing, maintenance, application/content usage
- Active players
 - AutoDesk
 - Webraska
 - MapInfo
 - Openwave
 - MapQuest
 - Teleatlas
 - SSVs (e.g. Microtec, MicroSAT, Schlumberger)