ITU Workshop March 2005

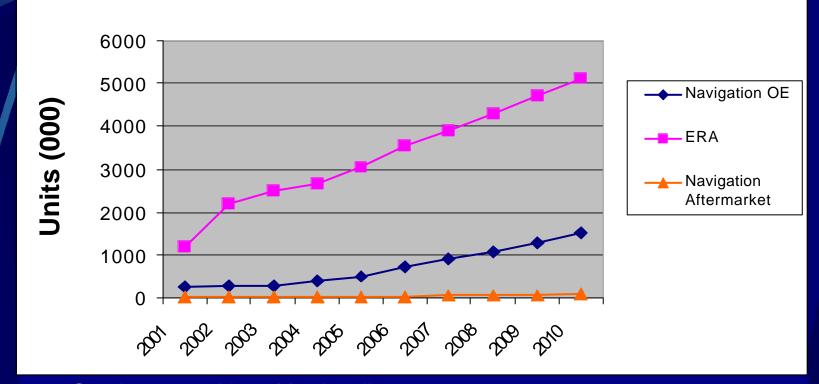
"The Fully Networked Car"

Session 1:
Business Model Discussion

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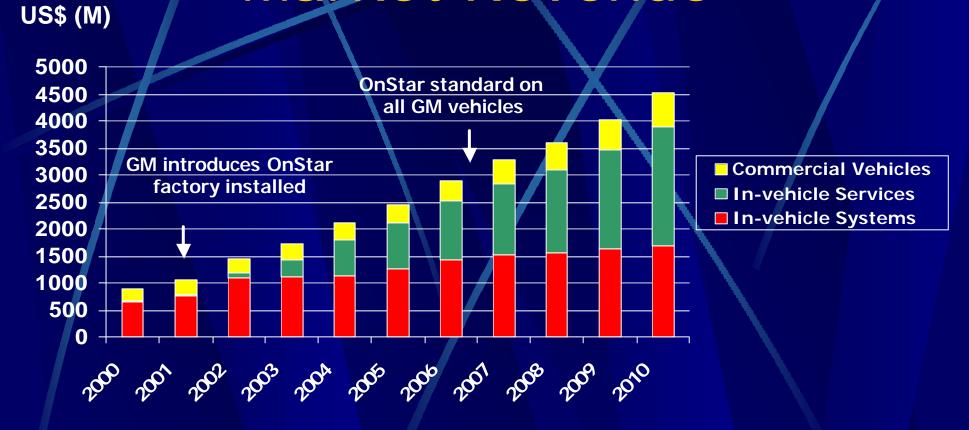
In North America Emergency Response is the Major Market

N. America In-vehicle Telematics Systems Market



- OnStar is approaching 3M subscribers
- ATX currently at around 500k with MB accounting for 350-400k
- Onboard navigation is still a limited market

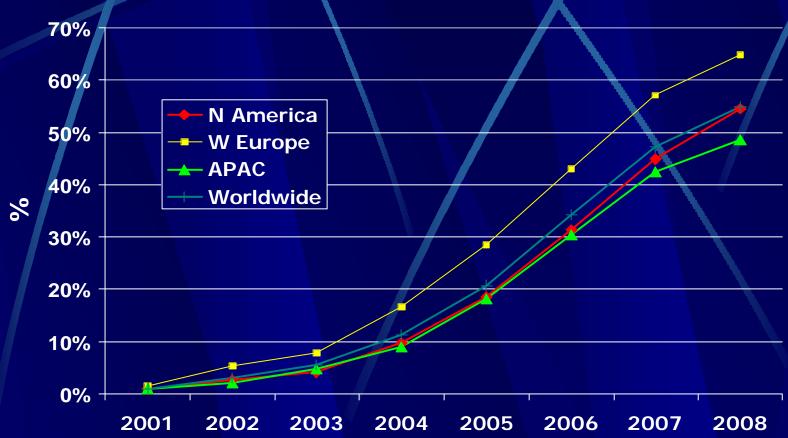
North American Telematics Market Revenue



- Total includes factory and dealer fitted systems and retail aftermarket
- Telematics Systems covers in-vehicle embedded GPS based e-Call and b-Call and navigation systems

Projected Adoption of Bluetooth on Cellular Handsets

Bluetooth Cellular Handset Sales by Region (% of Total Cellular Handset Sales)



Still Looking for Global Acceptance

- What user-oriented wireless information and entertainment services are consumers actually willing to pay for?
 - Are these *different* in the vehicle vs. at home, at work, etc.?
 - Are these different by region and country?
- Is the payment method part of the problem (subscriptions, up-front, bundled, etc...)?

Separate Voice from Data?

- Would consumers rather bring portable devices into vehicles than have embedded systems in the vehicle?
- Can voice-oriented applications be handled via user's personal communications device?
- Is an embedded data device sufficient for vehiclespecific applications?

Can Communications be Ubiquitous and Affordable?

- Is cellular the only communications option?
- When will new wireless pipelines be ready for safety applications?
 - Who will pay?
 - Who will regulate?
 - Who will manage?
- How can we decouple the vehicle communications life cycle from the life cycle of the vehicle itself?