

Automotive Research Topical Report

Internet in the Car: The Future of In-Vehicle Connectivity

By Egil Juliussen, Principal Analyst & Fellow

Forecast

Frequency, Time Period

- Yearly forecasts
- 2006-2016

Measures

- Car Internet users by segments

Regions, Markets

- USA
- N. America
- W. Europe
- Asia-Pacific
- Other regions
- Worldwide

Applications/Products Covered

- Embedded telematics sales
- Embedded telematics systems in-use
- Embedded telematics subscribers
- Embedded telematics Internet users
- Mobile device telematics sales
- Mobile device telematics in-use
- Mobile device telematics Internet users
- Cellular-to-WiFi systems in-use
- Cellular-to-WiFi Internet users

Technologies Covered

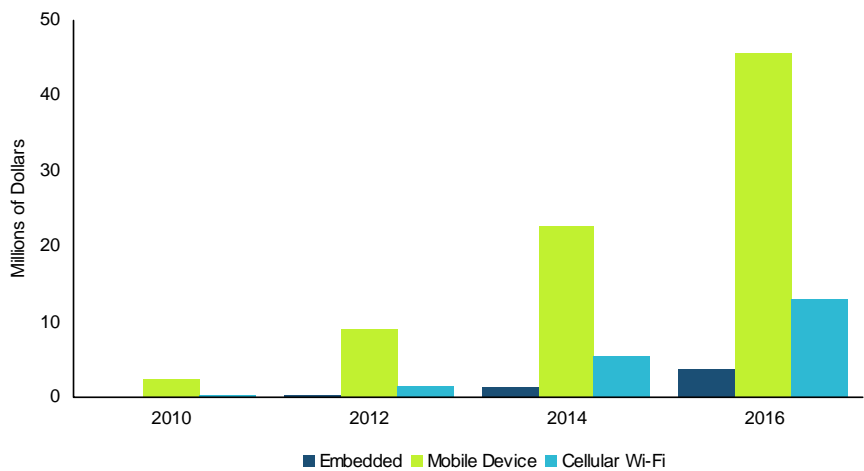
- Embedded cellular connections
- Mobile device car connections
- Cellular-to-WiFi car connections
- V2V and V2I communication connections

Connectivity in cars has been via telematics systems using either embedded telematics systems or hands-free interfaces (HFI) to the entertainment or navigation system. Telematics systems use low bandwidth applications, and have not been suited for current Internet applications. This is about to change as Internet-connections in cars will grow dramatically in the next decade. The mobile Internet or the use of Internet applications and services by mobile devices is growing rapidly in all regions of the world. The Internet in the car will follow the mobile Internet trends and applications.

Internet applications and content are set to make a major impact on car drivers and passengers during the next decade. There will undoubtedly be new and innovative car-centric Internet applications and services.

Both current telematics systems and Internet-connected systems have a bright future. By 2020, most likely all telematics systems will be Internet-enabled and the two categories merge.

Worldwide Car Internet Users



Critical Questions Answered

- Why is Internet car-access growing?
- What communication links will be used?
- Which communication links are most important?
- What car Internet applications are most important?
- What are the bandwidth requirements for key car Internet applications?
- How is telematics and Internet access related?
- What is the market potential of car Internet usage?
- How does car Internet users compare to telematics users?

Who Should Read This?

- Head-Unit system suppliers
- Navigation system suppliers
- Telematics system suppliers
- Wireless device suppliers
- Wireless operators
- Mobile Internet content suppliers
- Automotive OEMs
 - Product planning
 - Competitive analysis
 - Marketing
 - Strategic planning

Lead Analyst**Egil Juliussen, PhD
Principal Analyst and Fellow**

Egil has more than 30 years experience in the computer, communications, Internet and telematics industries. He has extensive experience in technology forecasting, competitive analysis and market forecasting. Egil was co-founder of Telematics Research Group (TRG), which was acquired by iSuppli in July 2008.

Prior to this Egil was president and editor of Computer Industry Almanac, which published eight Computer and Internet Industry Almanac reference books. Dr. Juliussen was Chairman and Co-founder of Future Computing, an information service company that was the first market research and product testing company for the PC industry.

Previously, Dr. Juliussen was with Texas Instruments Inc. where he was a strategic and product planner for MPUs, minicomputers and PCs.

He received B.S., M.S., and Ph.D. degrees in electrical engineering from Purdue University. Egil is a native of Norway and is a member of SAE and IEEE.

Table of Contents

- Introduction
- Internet Characteristics
- Communication Links to the Car
- Internet Applications
- Bandwidth for Internet Applications
- Current Internet in the Car Products
- Telematics vs. Internet Connected Cars
- Internet in the Car
- Internet Connections to the Car
 - United States
 - Western Europe
 - Asia-Pacific
- Internet Users vs. Telematics Users In the Car
 - United States
 - Western Europe
 - Asia-Pacific
 - Worldwide
- Internet Devices Used In the Car
- Dateline 2016: Internet Usage Scenario
- Car Internet Usage: Conclusions
- Appendix: Regional Definitions

Figures

- The Cadillac Wi-Fi Router
- MiFi Mobile Hotspot Devices
- Telematics and Internet Connected Car Overlap
- USA Car Internet Users
- Western Europe Car Internet Users
- Regional Internet Users
- Worldwide Car Internet Users
- USA Telematics vs. Car Internet Users
- Western Europe Telematics vs. Car Internet Users
- Asia-Pacific Telematics vs. Car Internet Users
- Worldwide Telematics vs. Car Internet Users

Tables

- Internet Characteristics, 2009
- Auto Communication Links
- Internet Applications
- Internet Application Bandwidth Estimates
- Cellular to Wi-Fi Router Products
- Car Internet Users
- Telematics Users vs. Car Internet Users 1
- Car Internet Device Potential, 2016
- Dateline 2016: Internet Use
- Countries by Regions