

Summary

Executive summary

M2M is an abbreviation for machine-to-machine, or a technology that supports wired or wireless communication between devices. Wireless M2M comprises all wireless network technologies, even though the term is generally used in reference to systems connected to cellular networks. Mobile broadband is defined as high-speed Internet connectivity delivered on cellular network infrastructure. As 3G mobile networks become prevalent, hardware platforms for wireless M2M and mobile broadband increasingly converge. This report is aimed at describing and analysing the market for wireless M2M and mobile broadband communication devices using cellular network technologies such as GSM/GPRS/EDGE, WCDMA/HSPA and CDMA2000/EVDO.

Machines and devices can be wireless connectivity enabled by connecting a standalone M2M communication terminal, by integrating a wireless M2M module, or through integrating wireless chipsets at the design stage. Fully approved and certified standalone M2M communication terminals are designed to fit projects where the available integration time is short, when upgrading existing applications with wireless connectivity or when the production volume is low. Plug and play integration using only cable connectors ensure rapid integration at low cost. For higher volume and space-sensitive applications, integration of M2M modules becomes more attractive despite the longer integration time and needs for end-product certification, because the solution cost per unit is reduced. Although wireless chipset solutions and reference designs are available from several technology providers, the extensive integration and certification efforts involved require very high device production volumes to become cost effective.

After acquiring Sony Ericsson's M2M business in early 2006, Wavcom has reinforced its position among the top three M2M module vendors, along with Siemens Wireless Modules and Motorola. At the same time, the market leaders are facing tougher competition from the rapidly growing suppliers Enfora and Telit that focus on cost effective modules. Moreover,

Telit's purchase of Bellwave's M2M module division and the establishment of a North American sales office have strengthened the company's market presence outside Europe considerably.

While M2M module sales in Europe have largely been driven by major utility AMM projects, the vehicle telematics market is likely to become the primary application for modules as European consumers continue to adopt aftermarket vehicle tracking and pay-as-you-drive systems in order to reduce insurance premiums. The real potential, however, can be unbleached towards the end of the decade when the eCall initiative to make automatic emergency call services standard for all new passenger cars is expected to be implemented. In North America, consumer M2M services have gained mainstream acceptance with the success of GM's OnStar safety and security services. Other manufacturers are likely to introduce similar concepts in order to remain competitive. With growing adoption of aftermarket and OEM telematics systems on many markets outside North America and Europe as well, two out of three vehicles sold worldwide in 2011 can be equipped with a telematics system relying on M2M modules.

Mobile broadband modules and terminals are used in numerous applications, from WWAN connectivity adapters for notebook computing to backup gateways for corporate communications networks. Although many M2M segments will eventually adopt 3G modules, the notebook and UMPC segment will most likely pioneer the use of the latest and fastest cellular modules in order to compete with other wireless networking standards. The major PC card vendors Option, Novatel Wireless and Sierra Wireless were the first to offer embedded modules for factory integration. After the decision by Nokia and Intel to abandon their collaboration around integrating HSDPA in the Centrino Duo notebook PC platform in February 2007, this field of the market remains open for established 3G data device vendors as well as new entrants such as Ericsson. Most major notebook vendors have already launched models with embedded broadband modules. In 2011, one out of three notebooks and UMPCs are forecasted to have built-in broadband modules to complement local area wireless connectivity adapters.