

Summary

Executive summary

People tracking solutions that enable a third party to locate a person were introduced in the late 1990s. Today, most people tracking solutions rely on GNSS and mobile communication technologies to determine the location of a person and transmit the data to a third party. Technological advancements have enabled substantial improvements in GPS receiver performance and cost. Small, dedicated battery powered GPS tracking devices suitable for the mass market has become a reality. There are also a growing number of people location apps that leverage the growing installed base of GPS-enabled smartphones.

People tracking solutions aimed at the consumer market range from family locator services that provide peace of mind for parents of children and teenagers, to solutions that assist caregivers of seniors and people suffering from various medical conditions. Family locator services have been part of mobile operators' LBS portfolios for many years, but are now facing competition from app developers. The willingness to pay for operator services is declining as consumers' awareness of free people location apps for smartphones has increased significantly in the past 12–18 months. Berg Insight estimates that there were about 20 million users of family locator apps in Europe and North America in August 2012.

The demand for dedicated location devices targeting the child and teenager segment is generally low as many parents adopt handset-based solutions. Numerous device vendors are therefore looking to address the needs of people caring for persons of all ages suffering from various medical conditions, such as autism and other cognitive limitations, epilepsy, cardiac problems and diabetes. These companies are also addressing the market for systems that assist seniors living at home or in care homes. The assistance systems are commonly called telecare systems or social alarms in Europe and Personal Emergency Response Systems (PERS) in the US. Berg Insight estimates that there are already up to 5 million users of the first generation social alarms connected to PSTN networks in Europe and North America. The addressable market for the next generation mobile social alarms is therefore large.

Companies from various industries such as fleet management, asset tracking and application development now provide people location services that address the needs of business customers. Mobile workforce management services aim to improve operational efficiency and focus on managing individual employees. Industry sectors leading the adoption of workforce management solutions include construction, distribution and companies with extensive field services. Mobile workforce management is frequently part of fleet management solutions for light commercial vehicle fleets. Applications can in addition be delivered via smartphones. Two-way communication saves time by enabling field staff to be directed to go from one place to another without returning to the central location for receiving new work orders. Cost savings can also be achieved through more efficient time verification and data collection in the field. Lone worker protection services primarily focus on ensuring the security of employees through features such as two-way communication and automatic location. Many lone worker protection services rely on dedicated location devices featuring alarm buttons and man down detection sensors. These devices are typically programmed to send alarms to supervisors or alarm receiving centres in case of emergency. Berg Insight forecasts that the number of active users of workforce management and dedicated lone worker protection services in Europe and North America will grow from 1.1 million in 2011 to 2.8 million in 2016.

Electronic monitoring (EM) of offenders is gradually being adopted globally. EM is used to provide alternative ways of sentencing offenders and reduce the escalating costs for the corrective systems. EM is employed at various stages of the criminal justice system, including at pre-trial, at sentencing and following a period of incarceration. The aim of EM programmes is to increase offender accountability, reduce recidivism rates and enhance public safety by providing an additional tool to traditional methods of community supervision. However, there is still debate over the effectiveness of EM and how to best implement the technologies in various programmes to achieve the goals. The most common forms of EM equipment in use today are RF systems that comprise a transmitter worn by the person being monitored, often in the form of an ankle bracelet. The RF transmitter sends out a signal to a receiver unit that communicates with a monitoring centre to report signal interruptions during curfews or any attempts to tamper with the equipment. Systems using GPS location that allow near real time location of the offender as well as creation of geographic inclusion and exclusion zones are also being used.