Summary

Executive summary

The first smartphones, defined as handsets with operating systems that support native third party applications, appeared on the market in the early 2000s. These devices primarily focused on messaging, featuring full QWERTY keyboards and e-mail functionality. Since then, handset manufacturers have launched countless models based on numerous form factors targeting diverse segments. Today, smartphones comprise a very broad range of devices, ranging from basic voice-centric handsets to converged multimedia devices integrating digital cameras, media players and personal navigation functionality into a single unit. Meanwhile, sales have grown from less than one million units in 2001, to more than 82 million in 2006.

Handset manufacturers gradually adopt smartphone operating systems in order to reduce development time and cost for new handset models. When more and more advanced functionalities are integrated into a single device, software development efforts increase rapidly. However, open smartphone operating systems allow several manufacturers to share the development efforts for non-differentiating software functionality. For mobile network operators, common open software platforms reduce handset procurement and maintenance costs, as well as facilitate service and application deployment.

In the past, the hardware requirements of smartphone operating systems have caused smartphones to be more expensive, larger and have higher power consumption than feature phones with similar functionality. Nevertheless, smartphone operating systems are being optimised to need less memory and processor power, at the same time as hardware improves, thus rapidly closing the cost and size gap between smartphones and advanced feature phones. The biggest barrier to increasing smartphone sales is the fear of the handset vendors and networks operator of open handsets that are vulnerable to malicious code. On the consumer side, increasing availability of advanced feature phones supporting multitasking Java, widgets and other run-time technologies can reduce the demand for handsets capable of running native third party applications.

Despite several years in a row of record handset sales, there is reason to believe that the growth will continue, albeit at a lower rate, chiefly from sales to the emerging markets. Moreover, sales of more advanced handsets are likely to grow when existing subscribers upgrade their current phones. Berg Insight estimates that total annual mobile phone shipments can grow to 1660 million units worldwide in 2012. Following raised manufacturer and network operator interest, smartphone shipments can grow at a compound annual growth rate exceeding 28 percent to 365 million units in 2012.

Mainly because Nokia and Sony Ericsson are likely to continue their strong backing of Symbian, Berg Insight believes that the core Symbian OS will maintain its leading market share also in 2012, with almost 44 percent of the worldwide smartphone market. By then, the S60 and UIQ platforms are likely to account for the largest part of Symbian OS sales, around 90 percent, up from 79 percent in 2006. A growing number of handsets vendors are showing interest in Linux and a majority of the key handset vendors already sell Linux devices in some markets. The stability and openness of Linux can well outweigh the disadvantage of continued platform fragmentation, resulting in more models on more market from several manufacturers. Together, various open Linux platforms, including Palm's new Linux-based in-house Palm OS version, are estimated to account for nearly 41 percent of the worldwide smartphone market in 2012. Windows Mobile is likely to remain a choice mainly for business oriented smartphones, thus limiting the market share to about 6 percent. Other operating systems such as RIM and Apple's OS X then account for close to ten percent of all smartphone operating systems.