

Smartphone Operating Systems

Smartphone Operating Systems is a comprehensive report analysing the global market for advanced operating system software in the handset segment.

This strategic research report from Berg Insight provides you with 100 pages of unique business intelligence including 5-year industry forecasts and expert commentary on which to base your business decisions.

This report will allow you to:

- **Understand** the dynamics of the worldwide smartphone OS market.
- **Evaluate** the existing OS platforms from key vendors.
- **Identify** the key drivers behind smartphone OS technology adoption among handset manufacturers.
- **Grasp** the current OS strategies of the leading handset brands.
- **Comprehend** the main differences and commonalities between the principal regional markets.
- **Anticipate** future technology trends and developments.



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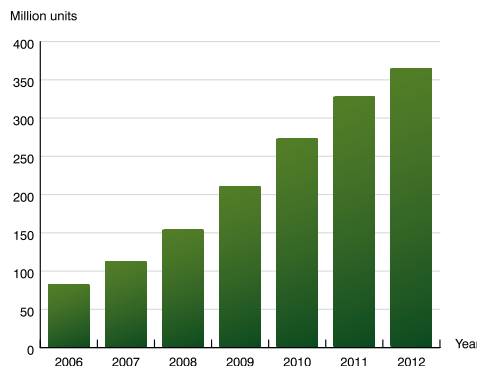
Will Symbian OS remain on top on the surging smartphone market?

The first smartphones, i.e. handsets with operating systems that support native third party applications, appeared on the market in 2001. 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 one 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 advanced functionality is 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, heavier 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 barriers to increasing smartphone sales are the handset vendor's and network operator's fears 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 ►



Smartphone shipment forecast (Worldwide 2006–2012, million units)

► 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 1,660 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 handset vendors are also 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 markets from several manufacturers. Together, various open Linux platforms, including Palm's new Linux-based in-house Palm OS version, can 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 will then account for close to ten percent of all smartphone operating systems.

This report answers the following questions:

- Why are operating systems so important for the development of advanced handsets?
- What are the key differences between smartphone operating systems and traditional handset software?
- Will Symbian OS continue to dominate the smartphone segment in the future?
- What is the current status of the user-interface and application platforms S60, UIQ and MOAP?
- Could standardisation of Linux result in the creation of a new industry-wide platform?
- How is Microsoft with Windows Mobile standing up against the competition in the smartphone segment?
- What are the regional differences in the adoption of advanced handset operating systems around the world?
- Who will be the key smartphone vendors in the future and who are the main market challengers?

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