Symbian OS

Symbian OS is the advanced, open operating system licensed by the world's leading mobile phone manufacturers. It is designed for the specific requirements of advanced 2G, 2.5G and 3G mobile phones. Symbian OS combines the power of an integrated applications environment with mobile telephony, bringing advanced data services to the mass market.

Symbian OS is a powerful aligning force for the wireless value chain, driving the wireless industry. Mobile phone manufacturers, network operators and software developers are assured that they are working with an industry standard, open operating system that allows customization and is focused on the mass market.

Symbian OS is designed to support innovation and customization by licensees. Compact enough to fit in the memory of a mobile phone, Symbian OS was planned from the beginning to be a full operating system in terms of functionality. It includes a robust multi-tasking kernel, integrated telephony support, communications protocols, data management, advanced graphics support, a low-level user interface framework and a variety of application engines.

Providing wireless services
Open standards ensure global network interoperability, allowing mobile phone users to communicate with anyone, any way, at any time. The compelling advanced data services that operators can provide on Symbian OS phones will help minimize churn and maximize revenue.

Developing wireless services
Software developers are able, for the first time, to build applications and services for a global mass-market of advanced, open, programmable, mobile phones. A set of standard application programming interfaces (APIs) across all Symbian OS phones and the advanced computing and communications capabilities of Symbian OS enable development of advanced services.

http://www.symbian.com

Key characteristics of Symbian OS:
- **integrated multimode mobile telephony** – Symbian OS integrates the power of computing with mobile telephony, bringing advanced data services to the mass market. Symbian OS is the operating system of choice for 2.5G and 3G mobile phones

- **messaging** – Symbian OS includes comprehensive support for SMS, EMS, MMS, email and fax. Peer-to-peer multimedia messaging is a key revenue generator for 2.5G and 3G networks

- **open application environment** – Symbian OS enables mobile phones to be a platform for deployment of applications and services (programs and content) developed in a wide range of languages (Java and C++) and content formats

- **standards and interoperability** – with a flexible and modular implementation, Symbian OS provides a core set of application programming interfaces (APIs) and technologies that is shared by all Symbian OS phones. Key industry standards such as IP v4 and v6, Bluetooth, Java, WAP and SyncML are supported

- **multi-tasking** – fully object-oriented and component-based, Symbian OS includes a multi-tasking kernel, middleware for communications, data management and graphics, the lower levels of the graphical user interface framework, and application engines

- **robustness** – Symbian OS maintains instant access to user data. It ensures the integrity of data, even in the presence of unreliable communication, and limited resources such as memory, storage and power

- **flexible user interface design** – by enabling flexible graphical user interface design on Symbian OS, Symbian is fostering innovation and is able to offer choice for manufacturers, carriers, enterprises and end-users. Using the same core operating system in different designs also eases application porting for third party developers.

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User interface customization

Symbian OS provides a flexible user interface (UI) framework that enables mobile phone manufacturers to differentiate their products while keeping the learning curve for developers to a minimum.

Advanced mobile phones will come in many forms: from designs resembling today's mobile phones with main input via the phone keypad, to tablet form factor which can be operated one-handed with a stylus, to keyboard-based phones with larger screens and small keyboards. The different input mechanisms and form factors strongly influence the intended primary use of these phones. User interfaces are ultimately both device and market dependent.

With Symbian OS, mobile phone manufacturers and third parties can produce innovative UIs for families of mobile phones such as:

mobile phones with a numeric keypad. They require a flexible UI that is easy to navigate with a joystick, soft keys, or jogdial. Nokia launched the Series 60 Platform which runs on Symbian OS and supports native Symbian OS applications and Java applications. The Nokia 7650 features the Series 60 Platform user interface.

mobile phones with touch screens. These are ideal for viewing content, like multimedia messages, and browsing content. UIQ is a customizable pen-based user interface for media-rich mobile phones. The Sony Ericsson P800 incorporates UIQ.

mobile phones with full QWERTY keyboards and large color screens. These provide an advanced mobile package for users needing to edit information and review business data while out of the office. The Nokia 9200 Series Communicator is a good example of this type of user interface.

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