

Symbian Device - The OS Evolution

(<http://www.i-symbian.com/forum/articles.php?action=viewarticle&artid=38>)

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This short article tries to reminisce the evolution of Symbian OS according to the first device released for each OS version. For a brief Introduction To Symbian, I recommend you to read an excellent article by **Steve Litchfield** at <http://3lib.ukonline.co.uk/symbianintro.htm>

Recently, Symbian announced the release of Symbian OS version 9 which among others is mainly targeted to the mass market, i.e. The OS is designed to build smartphone and advanced phones which will appeal to average Joes, not only for geeks. Among it's enhancements are the OS itself where it is designed to make manufacturers produce smartphones in shortest time, minimising the costs and thus, reducing the price of these smartphones. Sounds interesting aint it? There is no consequence or advantages of Symbian OS version 9 yet for the end users. Until devices powered by Symbian OS v9 are availale, let's just let the people in the lab do their job :-)

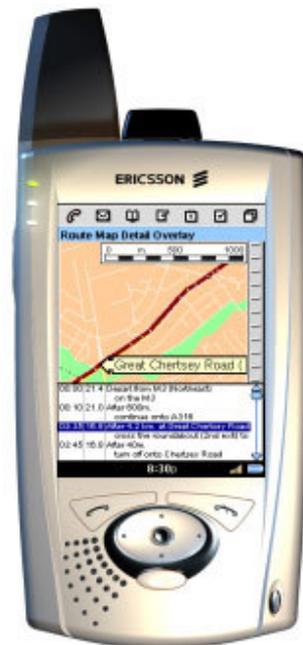
What I'm going to write here is something that just pops into my head. It's about the evolution of Symbian itself as an Operating System of choice for advanced smartphones. Looking back at 5 years ago circa 2000 Anno Domini, there are only talks and prototype presentations of Symbian powered devices. People are sceptical about the potential of the so called modernised Psion's Operating System. Devices like, Odin and Lyra, which are based on Symbian, as well as Ericsson's Quartzpad Communicator, brought a very interesting and advanced concepts which at that time, were hard to swallow. I mean, who wants everything inside mobile phone?...



Psion's Concept device called ODIN



SANYO's Concept Device called Lyra



Ericsson's Quartzpad Communicator

It turns out that the idea became a multi-billion dollar industry. Everybody is trying to get a piece of the smartphone pie including the Redmond giant, Microsoft and Palm Source (who once issued a statement that the smartphone market is not as bright as PDA market). More players emerged including Linux, as well as some homegrown proprietary smartphone OS (see GSL Wizard c33).

When Symbian started as a company (a result of Psion's chairman idea, Dr. David Potter who envisioned that one day, mobile phone will be more than just for receiving and making calls), everybody was waiting for the real device to be released in the market. Prototypes and concept devices were presented but no real device. In early 2000, Ericsson released the R380, the very first commercial Symbian powered smartphone in the world. And the rest, as they said... is history...

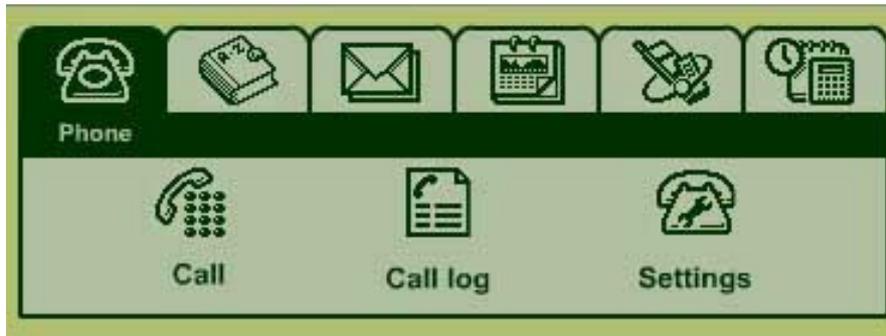
Let's have a look at Symbian (not EPOC!) by the first device released for each OS version :-

Symbian OS version 5 - Ericsson R380

Believe it or not, the first mobile phone (or should we call it smartphone?) that has Symbian OS inside it is the Ericsson R380 (that was before the mobile phone divisions of Sony and Ericsson joint forces and later known as Sony Ericsson). The Ericsson R380 was nothing compared to today's crops of Symbian powered devices but this early conception of a smart mobile phone was the face of mobile communications to come.



Freshly baked from the oven, the OS underneath Ericsson R380 was actually EPOC Release 5 Unicode or ER5.1 which in one way or another, was the same OS which powered Psion ER5 devices (eg netBook, 5mx etc). The difference between Psion devices and the R380 was in the UI (User Interface). While Psions are using what is famously known as EIKON, the R380 used a new UI developed by Ericsson called ECK (Ericsson Component Kit). Almost 95% of the OS are identical to the one underneath Psion machines.



However, Ericsson R380 used a closed system where it is impossible for users to add 3rd party application. However, it sold so well that Ericsson decided to release a few different variations of R380 in the shape of R380e and R380world.

R380 uses Jot handwriting recognition as the main data input in flip open mode and in landscape screen orientation. Users can check emails, take notes, browse internet (albeit in a simplified version via WAP) and more. This concepts were great and proves the versatility of Symbian especially the multi-tasking and stability aspects.



The success of R380 prompted Ericsson to develop the UI further which later on morphed into what is today known as UIQ.

Symbian OS version 6 - Nokia 9210

Symbian OS version 6 was made available publicly with the release of Nokia Communicator 9210 which offered more than just a phone. Combining telephony with complex mobile computing, complete with full keyboard, was not easy.



Nokia 9210 is actually an enhanced version of Nokia communicator 9000 series which was made popular in a movie called The Saint. The early 9000 series used an Operating System called GEOS.

Realising the limitation of GEOS, and the potential of Symbian, Nokia decided to concentrate developing better platform for it's communicator lines. Thus, Series 80 was born, which was taken from Symbian's early reference design called Crystal.

When this new concept was introduced to the market, there were mixed feelings among consumers because at that time, touch screen interface was everywhere especially in PDAs that use Palm and Windows CE. Many users are not satisfied because 9210 did not have touch screen.

However, it was a hit especially for business users because it provided all in one solution. It's like a mobile office where users can type documents, send and receive fax, keep important data, emailing as well as making and receiving calls. The ability to provide realtime multitasking made it the first of it's kind.

Apart from it's brick size and lack of touch screen it also suffers from lack of memory. And there was this famous quotation about the 9210 that goes "***Everything good about 9210 (Series 80) were taken from Psion 5mx while everything bad about it were taken from GEOS***".

To address issues that exist in 9210, Nokia reased 9210i, the enhanced version with some minor upgrade.

Symbian OS version 6.1 - Nokia 7650

Nokia is very good when it comes into marketing. The 7650 was dubbed as the world's first 2.5G mobile phone (whatever that means...), first GSM mobile phone with built in digital camera, etc.



Utilising Nokia's Series 60 UI (Series 60's firstborn), the 7650 became an instant hit. For the very first time, users are able to experience more than just phone features in a small package appealing to everybody. When it was first released, it is hard to find Series 60 applications but now, thousands of applications have been developed for Series 60 platform. Infact, Series 60 is the is used in more smartphones than any other UIs.

The 7650 is the first breed of this new generation of smartphone. The first Symbian smartphone, Ericsson R380 was badly designed (protruding antenna, loose hinge, closed system etc). After that, Nokia 9210 was released but again, some elements made it not sold very well especially to the mass market, people referred to it as a "**brick**" that can make calls.

The 7650 was sized right (almost...), it's pocket friendly, easy to use and packed with features out of the box. Nokia stripped down the UI to make it possible to do everything using one hand. For most users, it's just a regular phone but for some other users, the possiblity of installing applications and do some advanced stuff like checking emails on the move etc, really makes it stands out from the crowd.

These users, the early adopters, are the deciding factors and the driving forces that made Series 60 a dominant market player in smartphone business.

When I had my 7650 last time, I tried almost every applications that is released but because of missing external storage, the 7650 is very-very limited. With only around 3.6MB of internal storage for data and applications, there's really not much can be thrown inside. For example, in order to install the first version of Opera browser for Series 60, I had to delete everything and made the memory empty. It was that bad... The lack of memory card as storage was really a downer and this made me choose another Symbian smartphone that was just released at that time, Sony Ericsson P800.

Symbian OS version 7 - Sony Ericsson P800

Not only this was the first commercial device to use Symbian OS 7 but it is also the first smartphone with a new UI called UIQ that was made available for public. There were other UIQ prototypes before but they never really see the light of day (like the Ericsson Quartzpad Communicator which used Symbian OS 6 with UIQ 1.0).



The P800 received rave reviews from press and among geeks. It became an alternative to people who are not into Nokia. Many things about the P800 was indeed technological breakthrough (for mobile phones) like the memory card (using Sony's proprietary Memory Stick Duo). This made it a universal media player in mobile phone. Users can bring MP3 songs and listen to it (in stereo via earphones!) anywhere as well as watching favourite videos. The memory card made it possible to bring a large amount of data, be it entertainment or for serious stuff.

Applications for UIQ started to pouring in and the interface was very well-thought. Some users who are familiar with Palm OS made the change and embrace UIQ because the UI looks almost similar to Palm but I totally disagree with that. Well,

for example, P800 (and other UIQ device) allows multitasking where more than 1 applications can be run at the same time. Can Palm OS do this (multitasking)?

However there are some limitations in SE P800 especially the Memory Stick Duo where it only accepts only 128MB maximum. Many users especially power users are not satisfied with the 128MB limit. Another thing that really should be included was the document editor. SE P800 has a document viewer (a P.O.S. called Viewer developed by Stellent) which did not perform at all. Users demanded a real document editors to work with especially MS Word and Excel on the P800. This really took time to develop until QuickOffice was available for UIQ.



The SE P800 was a great phone with many features that will appeal to many users. On top of that, it proves that not only Nokia can develop advanced smartphones. The success of SE P800 was later on improved and its successors, P900 and P910 was really excellent.

Symbian OS version 8 - Nokia 6630

The first commercial device with version 8 of Symbian OS is the Nokia 6630. This smartphone has a lot to be desired. It's the first 3G smartphone that uses Series 60 and holds many firsts.

Here is the list of 6630's firsts :-

- The first device to use Symbian OS version 8 variant
- The first Series 60 from Nokia to use 1.3 megapixel camera

- The first Series 60 from Nokia to use DV-RSMMC (Dual Voltage - Reduced Size MultiMedia Card)
- The first Series 60 device that supports 3G network
- The first Series 60 from Nokia to use a 220mhz processor

The Operating System itself, version 8 is designed to be more effective and supports many new standards in the mobile telecommunication industry like EDGE, W-CDMA and more.



It is too early to say anything about the 6630 but many users expressed their concerns about application compatibility with the older Series 60 applications. I believe Nokia is improving on this

Conclusion

Symbian, as an Operating System, is very flexible and allows manufacturers to tailor their products to their specifications. This resulted in various types of devices for different market segments. Whether you are a serious user or an average Joe who needs simple phone, Symbian provides the solution for you. For those who need to type heavily, there's Series 80 (eg 9500) to do the job, for a teenager who likes gaming, there's N-Gage (Series 60), and for users who like to watch video and listening to music, there's P910 (UIQ) with support for 1GB storage. Remember, **If It Aint Symbian, FIX IT!** :-)

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