

The Evolution of SoC Platform According to the New Mobile Paradigm

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Mobile business has grown rapidly over the last five years. With multimedia technology being applied quickly to the mobile environment, we are seeing a greater variety of mobile devices from mobile phones to MP3 players, cameras, and navigation devices, and as technology develops at a faster pace, truly innovating mobile multimedia technology is being witnessed. This innovative change can only be sustained upon a deep understanding of the evolution of SoC platforms according to the change in mobile paradigm.

In the early mobile phone market, call quality was the greatest issue. Afterwards as functions leveled off to a certain degree, manufacturers competed for better design in the aspects of high speed / stability, convergence, and slim form factors according to the introduction of the 2.5 generation mobile network in the early 2000s. At this stage, camera (photo), MP3 (music) and now even TV (video) functions have been converged into mobile phones giving momentum to the evolution of multimedia functions in mobile handsets. Until now the innovation of mobile handsets were centered around technology, but with 3G technology changing the focus from telephony to video telephony, the evolution of handsets is changing to the perspective of marketing and technology. In addition, with the emergence of the smart phone, not only is Internet easily accessible, but the wireless connection of mobile phones with other mobile devices has become important which is leading to a state of multi-networks.

As witnessed, the innovation of mobile handsets was led by faster development speed and convergence. In this kaleidoscope of handset development, SoC platform technology was at the foundation. The camera function of mobile phones grew with the development of ASIC/SoC technology and the evolution of MPEG 2.4 technology which is the global standard for video multimedia. Now, the Multimedia Application Processor (MAP) which enables various multimedia applications such as music phone, movie phone, and TV (video) will evolve into a multimedia-centric Application Processor (AP) and will lead the transformation of multimedia along with other various operating systems.

In the new mobile environment which emphasizes Internet and connectivity, SoC technology and marketing will be the cornerstones of the mobile multimedia network and in order to efficiently support this we must understand the new mobile paradigm and evolve the SoC platform to accommodate this change.