

Keynote: Next Generation Architectures Can Dramatically Reduce the 4g Deployment Cycle

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Abstract: We have been "talking" about 4G systems emerging in 2010 for many years. However, to deploy these systems in 2010, we should already know with high confidence the 4G signal processing and SoC architectures for 4G handsets. It realistically takes 2 years to develop a power-efficient, cost competitive system-on-a-chip (SoC) for a volume market. There are standards to be completed, field trials, and wide scale acceptance before a system solution becomes viable. The entire cycle is at least 5 years. But, rather than giving up on 2010 as the year for 4G, we need to continue developing the right signal processing, network protocols, and SoC architectures given our knowledge of Moore's Law, emerging tools sets, and advanced receiver technology, which together facilitate rapid time-to-market of energy efficient solutions. The market winners will quickly adapt to the emerging 4G ecosystem and will develop solutions before others. This talk provides some historical perspectives on architectures and systems evolution with the goal of providing an optimistic view that 4G is very near.