

Preface

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Intel's vision of "A Billion Connected Computers" has been the catalyst for a number of Intel-defined programs to connect computers. Wireless connectivity represents the next frontier for mobile computing, and Intel has been investigating the challenges of wireless connections for mobile PC's for some time now.. A key decision that had to be made was which radio technology should be built into mobile computers. There was no existing standard that gave the right performance, was available for worldwide usage, was extremely low powered, and was inexpensive enough to build into a broad range of devices. Consequently, Intel, together with our partners, set about creating a new standard. This resulted in Bluetooth* technology, a technology that allows peripherals to be connected wirelessly.

The need for anywhere anytime connectivity for mobile PC's is about to be answered. We are soon to enter a very exciting era for mobile computing. Over the next one to five years, we are going to see the emergence of new devices, applications, and usage models. The mobile PC as we know it today will evolve to where it PC will affect all types of users in all parts of the world.

The six papers in this issue of the Intel Technology Journal offer a lively discussion on Bluetooth and wireless connectivity. The first and second papers present the hardware and software architectural overviews. The third and fourth papers look at integration details and the issues and benefits of Always On, Always Connected computing.

The fifth and sixth papers address other wireless technologies and directions. The fifth paper specifically addresses security, one of the key issues surrounding wireless connections. If it is convenient for one individual to access business information, how do we prevent others from intercepting the information? The sixth paper looks into the evolution of cellular phone infrastructure as it moves towards being able to support significant data rates for computing applications.