

**Special Session “4G System Proposals in Asia”**

**Beyond 3G Roadmap and Emerging Technologies**

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**ABSTRACT**

As we are getting experienced using mobile handsets in our daily lives, we are living in a convergence period with mobile communication, internet, computing and broadcasting. Beyond 3G technology roadmap can be approaching either by cellular-based, 2G, 3G and beyond 3G or nomadic-based, IEEE 802.11 (W-LAN), 802.16d (WiMAX) and 802.16e (WiBro). 3GPP/2 have been quite active recently in their 3G evolution standards work and both targeting mid of 2007 as completion of 3G evolution standards. Also mobile WiMAX camp is also very active stabilizing its IEEE 802.16e specifications in mid of 2005 and considering its evolution standard towards 4G. ITU is promoting global spectrum allocation for 4G in WRC-07 and with the WRC-07 global spectrum results, a long-term 4G standard may start with both evolutionary and revolutionary technology approaches. Research and business interest in future 4G mobile system is globally increasing and extensive research in the field of 4G is progressing through WWRF and many national 4G research fora. New services and applications are crucial for differentiating 4G from 3G. For future advanced high-speed multimedia services and applications, more IP-centric simplified network architectures are essential to reduce the infra cost and fast connection time that users want. In Korea, IEEE-802.16e –based Wireless Broadband (WiBro) service will start commercially in 2006 and key requirements and network architectures are introduced in this presentation. Also we envision that WiBro technology can be a good solution to offer various IMS services in different network environments (public, corporate and home networks) with a single handset with a single ID number. We respect both 3GPP/2 evolution and IEEE 802.16e evolution paths towards 4G. In that sense, whichever beyond 3G evolution technology path, a time-to-market is very important for future users to decide as the best way toward 4G.

As a healthy IT industry, Samsung Electronics will follow up very closely with our best technology contributions to both standard bodies to make the future 4G world successful.