

Major New Report on 3G Cellular Infrastructure

Report predicts 3G rollout to be faster than most believe

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Tempe AZ--Nov. 4, 2002--Forward Concepts has announced the publication of what is probably the definitive in-depth study of the market and technology of the worldwide cellular infrastructure. The new report, "Wireless Infrastructure Technology & Markets: The Challenge of 3G," details infrastructure markets through 2006 and the technology changes necessary as cellular evolves from the circuit-switched, voice-only digital second-generation (2G) through combination circuit-switched voice and packet-switched data 2.5G to the "all-IP" multimedia-centric third-generation (3G) deployment of the future.

The report forecasts that worldwide cellular subscribers will grow at a 13.6% rate, from 1.1 billion in 2002 to 2.0 billion subscribers in 2006. However, fueled by competition among cellular service providers and their aggressive subscriber rate plans, the report predicts that infrastructure capacity demand will grow at an estimated 35% compound rate as a result of both increasing air time and greater bandwidth use by wireless subscribers.

The worldwide capital investment in base station and mobile switching system electronic equipment will grow at a compound rate of 8.3% from \$49.5 billion in 2002 to \$68.6 billion in 2006. The report details worldwide investment by major air interfaces, by region.

"3G deployments will be both evolutionary and revolutionary," according to Dr. James E. (Jim) Gunn, Forward Concepts Senior Consultant and author of the report. He elaborated, "In spite of the current difficult economic and telecom environment, we observe many positive trends. These positive trends include: 1) many actual and pending 2.5G/3G deployments, 2) significant interest in emerging market possibilities, 3) non-voice revenue by operators climbing to 10% or more, and 4) semiconductor and wireless handset industry indicators are exhibiting positive trends. We believe that the economic environment will continue to improve and that the many standards and technical issues will be soon resolved. The value proposition that 2.5G and 3G brings to subscribers appears to be confirmed.

Dr. Gunn emphasized the technical content of the report, saying, "We believe that DSP and semiconductor technology advances will be sufficient by late 2003 to support Software-Defined Radio (SDR) technology deployments in both mobile terminal and infrastructure markets. The main issues will be the market needs, the supporting RF and mixed-signal technologies and the cost of implementation. For mobile terminals, SDR will enable worldwide roaming by a single user with a single handset. For infrastructure, SDR will provide economies of scale, flexible 2.5G-to-3G transition, and flexible provisioning."

The report predicts early 3G deployments in Japan and Korea will soon be eclipsed by a rapid rollout over an already-installed significant 3G infrastructure in Europe. Wireless Internet deployment will likely be regionally motivated, with the greatest opportunities in countries with lesser wireline Internet penetration, like Japan and China. Since the U.S. is the only country where wireline Internet penetration leads wireless, the largest wireless Internet opportunities will probably be outside of the U.S.





The report tags Ericsson as continuing as the leading vendor of cellular infrastructure equipment (including both base stations and switching centers) in 2001, with an estimated 28.3% of the market, followed by Nokia and Motorola, with 12.7% and 12.2% market shares, respectively.

The operational heart of the cellular infrastructure is based on Digital Signal Processing (DSP) technology. The report calls Agere as continuing to be the leading programmable DSP chip provider to the base station market for 2001, fueled by upgrades of GSM base stations to GPRS capability. With a 46% market share, Agere is followed by Motorola, Texas Instruments, and Analog Devices, with 22.4%, 20.1%, and 8.6% shares, respectively. The report notes that TI appears to be gaining ground in new 3G base station implementations.

According to Will Strauss, president of Forward Concepts, “ Most wireless reports emphasize the subscriber side of the equation, and with cellular handsets having a six-month half-life, the replacement units now outnumber new subscriber counts by almost two to one. Because of its importance, the cellphone market is also covered in detail. However, those handsets cannot work without the base stations and mobile switching centers necessary to support the wireless network. We believe that this is the most significant study of the cellular infrastructure market available today. It provides detailed subscriber history by country and major service providers and profiles major U.S. Metropolitan Statistical Areas (MSAs). The report is technically detailed enough to provide network planners with guidelines for future base station deployments. Dr. Gunn has produced another outstanding report and we are very proud of it.”

The 450-page report, “Wireless Infrastructure Technology & Markets,” includes 105 figures and 87 tables and is priced at \$4,650.00 in North America. The report is available from Forward Concepts, 1575 W. University Dr. #111, Tempe AZ 85281 [Tel: 480-968-3759, Fax: 480-968-7145, email: <mailto:info@fwdconcepts.com>].

Details of the report are available on the company's website at www.forwardconcepts.com and the author may be contacted directly at <mailto:jimgunn@fwdconcepts.com>.

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