The Long and Wireless Road: One Farsighted Navigator Weighs In

BY CAROLYN WHELAN ● Pete Peterson isn't a household name. But his stellar track record might change that. The Prudential Volpe wireless equipment analyst rated Nokia a buy in July 1997, back when few had even heard of the company. He also blessed Qualcomm with a strong buy in mid-1998, when the stock was trading at $6. (We'll pause a minute to let that one sink in.) Now the 36-year-old Peterson, an engineer by training, is tracking so-called third-generation, or 3G, cellular—a novel and controversial wireless data technology that, to hear the pundits talk, could soon have us watching *South Park* on our cell phones. FORTUNE caught up with the analyst at his San Francisco office to get the skinny on 3G after the recent telecom selloff.

What exactly is 3G?

The United Nations' International Telecommunications Union uses the term to describe two main technologies it endorsed for better mobile performance: Qualcomm's CDMA2000 and the WCDMA standard that will soon be used in Europe. But you'll often see the term applied to any wireless technology that significantly increases capacity and capability and decreases cost.

That also means more phone calls on a given network, right?

Yes, 3G offers about 30 times what a conventional analog network provides (and nearly four times the capacity of Europe's current standard, GSM). Data rates of 2Mb per second [2Mbps] are also 200 times faster than GSM. That will make cell phones more ubiquitous and increase usage, since it also allows for the same capability at far lower costs. While you may not be able to browse the Internet at breakneck speeds—and you'd be limited by the phone's screen size and battery life anyway—you should be able to get personalized local content such as music and news, local weather and traffic reports, mobile maps and games. (Handsets in Japan already offer animation.) Then there's the fact that the connection is always on. That's important. Callers complain about waiting too long for WAP [a wireless Internet standard that uses older technology].

3G or not 3G? Prudential Volpe's wireless equipment guru has an answer.

So what's so controversial about 3G?

Most GSM subscribers and equipment makers have been in Europe. For Europeans, maintaining that leadership is important. The new technology from U.S.-based companies like Qualcomm threatens that. And that has led to standards wars and technology battles.

But the European carriers need 3G to reduce their costs and to stave off, for a while at least, the further commoditization of wireless service. I expect 3G services in Spain, Finland, Germany, and the U.K. to begin in 2001, and a huge acceleration elsewhere in 2002 as 3G moves more customers onto the network.

You were in Asia in May, sussing out 3G there. Any breaking news?

The Koreans and Japanese are really pushing the envelope with the new technology. 3G networks will be installed by Korea's SK Telecom and Freetel this year, and by Japanese carriers KDDI, J-Phone, and NTT DoCoMo in 2001. And even China, which should award a GSM license to China Telecom, is expected to follow its neighbors with 3G. The country's 800MHz wireless spectrum—the dominant cellular frequency in the U.S.—is an unused asset that China wants developed locally. Based on signed contracts, China will spend some $10 billion a year to upgrade its wireless networks. In fact, last month China's Premier said it would adopt CDMA to get into the World Trade Organization. Qualcomm and China's ZTE, for example, have already announced a CDMA handset prototype, and the former is actively looking for local manufacturers.

Where do you see more growth, Europe or Asia?

In Asia by far. Though each region currently has roughly 190 million subscribers, Asia's market is only 6% penetrated, while four in ten Europeans already have a wireless phone. Equipment makers Ericsson, Nokia, and Motorola are all strong in Asia. Ericsson, the leader there,

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