What a Future IPhone With WiMax Might Look Like

By Bryan Gardiner  10.04.07 | 11:00 AM

Imagine an iPhone from Apple that makes VOIP calls, gets faster-than-Wi-Fi internet access, and boasts weeks of life. Best of all, it's not tied to a pokey Edge network.

Taiwan's DigiTimes reports the rumor that Apple will base future iPhone versions on Intel's upcoming Moorestown processors -- low-power, high-performance systems-on-a-chip aimed at smartphones and mobile handsets.

The rumors sparked a lot of excitement on Mac gossip sites and forums about better battery life and increased software compatibility with Apple's Macs.

What many ignored, however, is the fact that Intel's Moorestown processors will also be an integrated WiMax platform.

"The iPhone is the perfect device for (Moorestown)," says analyst Roger Kay of Endpoint Technologies. "I mean, the iPhone is really a mobile internet device with a phone tacked on for good measure."

WiMax is an emerging standard for 4-G wireless data networks that promises maximum download speeds of 70 mbps -- more than six times the speed of 802.11b Wi-Fi's 11 mbps. In practice though, WiMax speeds will likely not reach the theoretical maximum, but will probably match that of Wi-Fi.

After years in the lab, WiMax is about to go mainstream, according to Intel. In 2008, the first devices from the likes of Nokia, Lenovo, Toshiba and others will debut. At the same time, Sprint Nextel and Clearwire are working on natic WiMax networks, which should be completed by 2010. Intel is on task to begin Moorestown production in 2009.

The Santa Clara, California-based chipmaker has been a strong proponent of WiMax over the years. WiMax will theoretically compete with Wi-Fi and let service providers build ultra-fast networks using radio antennas. A WiMax enabled iPhone could even signal the end of the traditional carrier-pricing models, because high-speed internet connectivity would become virtually ubiquitous.

Intel is a powerful ally of the WiMax technology. After all, Intel's Centrino chip set is a major reason Wi-Fi is now universal, and the company is hoping Moorestown will do the same for WiMax.

Apple's adoption of Moorestown could also provide a big boost. The research firm iSuppli predicts Apple will sell 22 million iPhones in 2009.

Whether Apple uses Moorestown processors for the iPhone, iSuppli says WiMax will find its way into devices like Blackberry and other smartphones.

"You have to remember Apple isn't the only device maker that could be implementing WiMax," says Kay. "Every timeline. It's certainly no secret that a lot of companies are going down this road."

However, Apple’s position on WiMax remains unknown. Apple did not respond to requests for comment.

Tina Teng, iSuppli's mobile communications analyst, says Intel is a force to be reckoned with, but there could be competition from other 4-G wireless technologies. Other semiconductor vendors are supporting a technology known LTE, an ongoing project to improve the existing 3-G UMTS mobile phone standard.

Which brings up another potential problem: As Chris Hazelton, senior analyst for mobile devices at IDC, notes, there also be sticky exclusivity deals with AT&T that could hamper Apple's WiMax iPhone ambitions -- if indeed it has
AT&T itself is currently working on building out its own 3-G high-speed downlink packet access, HSDPA, network has already said it's not interested in joining the likes of Sprint and Clearwire in WiMax build-outs.

In that sense, the real key to Apple's WiMax decision may come down to whether there's a decent infrastructure for customers to use in the first place.