



BY MAURY WRIGHT, EDITOR IN CHIEF

802.11n progress: consensus building or end run?

The industry has well-documented the impasse in the IEEE 802.11n-standard development for next-generation WiFi wireless LANs. Intel and Broadcom led factions that agreed only to disagree. In the summer, the IEEE committee formed a joint-proposal group to bring consensus to the effort. Intel, along with conspirators Atheros and Broadcom, meanwhile, was planning an end run by privately developing a spec that it launched publicly under the EWC (Enhanced Wireless Consortium). The true motives of the players may never be fully evident, but it looks as though the EWC play will win the day.

When the EWC story broke in October, I wondered what could convince Broadcom and Intel to suddenly become partners. I speculated that the success that Airgo Networks was having with its MIMO (multiple-input, multiple-output) technology led to the unlikely partnership (Reference 1). I've had several EWC players try to convince me of a different sequence of events.

According to Atheros CTO William McFarland, Intel and Atheros early this year began work on what became the EWC to prove interoperability. The two companies agreed to separately build products to what had been the Intel-led TGn Sync proposal to 802.11.

This industry doesn't always keep secrets well, and players often strategically leak information. It's unclear how Broadcom learned of Intel's and Atheros' efforts, but McFarland claims they led Broadcom to ask to participate, and the EWC was formed. Broadcom may have been afraid that Intel and Atheros were close to launching proprietary products attempting to create a de facto standard.

Broadcom may have been afraid that Intel and Atheros were close to launching proprietary products attempting to create a de facto standard.

When the companies launched EWC, some participants in the IEEE joint-proposal group were blatantly unhappy. At the time, Greg Raleigh, Airgo president and CEO, lamented that the joint-proposal group was finally making progress and that the EWC would simply derail that progress. Others, such as participants from the mobile-phone and consumer-electronics communities, were upset that the EWC spec lacked provisions critical to the integration of 802.11n into handsets and to the use of 802.11n for carrying video in the home.

Fast-forward, and the EWC group claims to have taken steps to appease the handset and consumer factions. McFarland claims that the EWC founders started with a basic spec to achieve compromise and consensus. The EWC has agreed to add provisions for the other constituencies, although it is still working out some of the details.

Airgo, meanwhile, still hasn't joined the EWC. Beau Beck, Airgo's vice president of business development, contends that Airgo would gain little at this point by doing so. In fact, he claims, the EWC has basically evolved to the point at which the joint-proposal team stood earlier in the year. After the November meeting of the IEEE 802.11n committee in Vancouver, the EWC claimed that the joint proposal and EWC specs "are approximately 85% aligned."

So why did the EWC start? I still think fear of Airgo was a factor. I also suspect that Intel figured it could use the strategy to get a jump-start in building 802.11n chips. But Airgo's Beck states, "If you build what you called out in June, then it's not going to be compatible with the EWC spec today."

Still, I expect MIMO chips from numerous sources before 802.11n becomes a reality. Start-up Metalink is already claiming compatibility with the draft standard with two ICs. I'd expect an announcement from Atheros and Marvell soon. And I'm betting that Intel is hoping that this impasse and end run will finally allow it to get in the wireless game. Yeah, I know all about Centrino. But many Centrino notebooks have Intel 802.11 inside, and the company has stumbled badly technologywise in 802.11. But perhaps that's a topic for another column. **EDN**

REFERENCE

1 Wright, Maury, "Intel and Broadcom push new WLAN spec, fear makes strange bedfellows," Oct 10, 2005, www.edn.com/blog/150000015/post/1610001561.html.