



WIRELESS STANDARDS UPDATE Issue 1/2003

We will first have a look into some facts related to wireless networking and then take a look into what is happening with the long-expected 802.11g standard.

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The wireless world: did you know. . .

* . . .that there is talk of the IEEE's building 108M bit/sec extensions into the 802.11a standard (which now maxes out at 54M bit/sec)? Currently, companies such as chipmaker Atheros Communications and wireless LAN vendor Proxim offer the 108M

bit/sec capability by combining two of 802.11a's 54M bit/sec channels. In question is whether these implementations will ever make it into the formal standard. Doing so, say some observers, would give wireless LAN vendors still fewer ways to differentiate themselves.

* . . .that laptops will reportedly ship in early 2003 with combo 802.11a/b connections embedded?

* . . .that the ad-hoc (peer-to-peer) networking implementation component of the 802.11b standard is not part of The Wi-Fi Alliance's certification testing? No big deal, if your users are communicating through a network of access points. However, for enabling users to collaborate on a peer-to-peer basis, make sure users' client adapters support the same implementation of ad-hoc 802.11b, because Wi-Fi certification does not assure interoperability.

* . . .that there is some industry contention about whether meshing should take place at Layer 2 or elsewhere? Meshing is a relatively new approach for cost-effectively boosting capacity of 802.11 networks by using client devices as relay points. Some argue that the capability should be embedded in the Layer 2 MAC; other contenders are Layer 3 (the IETF might have to get involved) or the laptop operating system itself. A study group reportedly might take up the issue within the next few months.



* . . . that hospital patients - yes, "patients"- have become a target market for 802.11 technology? There was serious talk at the show about enticing bedridden-but-bored hospital clientele with Wi-Fi-based Internet access services. There was also talk of providing patients hooked up to testing equipment with access to their own vitals. But would you really want to know?

Source : Joannie Wexler for nwfusion

802.11g Draft Dodging

Despite the knowledge that the final approval of the 54Mbps 802.11g standard is still months away, wireless networking companies are getting on board early and releasing products based on the draft version of the specification.

The 802.11g standard improves the speed of wireless networking to 54Mbps over 802.11b's 11Mbps. The new standard also operates in the 2.4Ghz band, so it it's backwards-compatible with 802.11b. Not surprisingly, the spec is long awaited by both consumers and retailers. Some of the chipmakers have already unveiled chipsets using the as-yet-unratified 802.11g standard.

At November's Comdex tradeshow, among the many computer gadgets on display were several devices employing the pre-standard 802.11g.

The 11g Bandwagon

Will the decision to wait until spring or summer 2003 for the final approval of the new high-speed networking standard by the IEEE hurt those vendors that postpone product availability?

The general belief is that the market won't jump on 802.11g .The demand has grown to a level where Dennis Eaton, chairman of the Wi-Fi Alliance had to warn companies that were leap-frogging over the usual Wi-Fi Certification approval process. "These actions undermine the value of an industry group," Eaton said in one press report.

Chip makers Agere (Quote,Company Info) will wait until late 2003, early 2004 to ship their co-developed 802.11a/b/g chip. Proxim (Quote,Company Info) says it will also wait until the standard's final approval.



Potential Pitfalls

Where are the potential pitfalls of products relying on a draft version of the 802.11g? It comes down to compatibility.

Deploying draft 802.11g alongside 802.11b could present security concerns for large companies, says the analyst.

Although pre-ratified 802.11g products are said to be backwards compatible with 802.11b, such claims should be taken with a grain of salt.

The analyst says flooding the market with 802.11g products before the standard is compatible could cause confusion and leave a bad taste in consumers' mouths. If user satisfaction drops, the market for 802.11g products could sour, just as it did for Wired Equivalent Privacy (WEP). As WEP security became a joke within companies trying to secure their wireless networks, the Wi-Fi Alliance took parts of the draft 802.11i security standard and unveiled Wi-Fi Protected Access (WPA).

This isn't the first debate over marketing versus standards -- and it won't be the last.

Source : 802.11 planet