

Wi-Fi's Growth Catches VCs' Eyes

BUT IS THERE DANGER OF OVER-FUNDING?

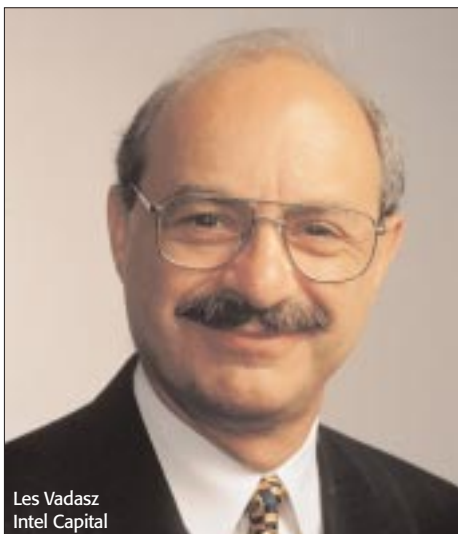
BY BRENON DALY

Instead of working in a real-time enterprise, most of the millions of mobile workers across the country find that working from remote locations means slow links to the head office, and incomplete access to most of the critical documents, emails and other information stored back on the corporate network.

But at a few thousand locations around the country's largest cities, mobile workers are starting to take advantage of the emerging technology of Wi-Fi. Short for "wireless fidelity," Wi-Fi allows laptop users to connect in "hot spots," which are effectively wireless local area networks (LANs), at speeds of ten times most broadband links.

While the growth of Wi-Fi has surprised many industry analysts, the need for such services are obvious. Nationwide, almost 25 percent of all enterprise workers are considered mobile, spending more than 20 percent of their time away from their workspace, according to a recent Yankee Group survey. This equates to 40 million mobile professionals in the U.S. who still want and need access to the Internet or their corporate intranet and e-mail servers.

Most business travelers have come to know – and dread – the drill of connecting to the office: find an open line, configure the modem and protocols, get through information security checkpoints and hope that everything clicks.



Les Vadasz
Intel Capital

Wi-Fi is changing all that. Although the standards for 802.11 – as the technology is also known – have been in place since 1997, most of the deployment to date has been in the consumer market. An estimated 1 million U.S. homes have installed Wi-Fi networks.

"The economics of the consumer market is driving Wi-Fi adoption," said Greg Galanos, a managing director at Mobius Venture Capital, which has funded eight Wi-Fi companies. But he added that the technology will be adopted by businesses because it "reduces both capital expenses and operational expenses" for mobile workers. Yet Wi-Fi still faces a number of challenges.

Because Wi-Fi networks run over the unlicensed radio spectrum, security measures such as authentication and authorization have been notoriously difficult to implement. While that may not be much of a concern for a single home user, corporations won't tolerate unsecured networks.

"Enterprise deployments have been slowed because of security," Burton Group analyst Michael Disabato said. He added that more Wi-Fi units are now sold for consumers than businesses. In total, some 15 million 802.11 units (either receivers or sending stations) were sold in 2001, generating about \$1.5 billion in sales.

Another shortcoming is that most Wi-Fi hot spots have a range of only about 200 feet, and coverage at this point is limited to major metropolitan areas.

Nevertheless, "Wi-Fi is the lone bright spot" of the \$250 billion telecommunications industry that has been wracked by over-capacity and plummeting prices, Disabato said.

That has attracted an ever-increasing amount of interest from venture capitalists. Over the past four years, more than 100 wireless LAN startups have drawn in more than \$1.5 billion.

Wi-Fi interest is "mushrooming at a rate I haven't seen since the early days of the PC," Les Vadasz, president of Intel Capital, said recently. The chip-making giant, which made its first 802.11 investment in 1999, set aside \$150 million in venture capital in October to fund Wi-Fi startups. In its first week alone, the fund attracted 100 business plans, Vadasz added.

Along with IBM, AT&T and a pair of VC firms, Intel was also one of the backers for Cometa Networks. The ambitious Wi-Fi startup plans to begin wholesaling its service next year and have 20,000 wireless access points built up by the end of 2004.

Dozens of other freshly baked Wi-Fi companies have also cashed checks from corpo-



Greg Galanos
Mobius

rate venture backers, even as many scale back or shutter their investment wings.

The corporate investments in 802.11 are "partly defensive... and partly because they're going where the money is," Burton's Disabato said. Most Wi-Fi hot spots have been set up on paths trodden by business travelers, such as hotels, airports, and Starbucks.

Among recent corporate VC fundings: Boingo Wireless drew money from New Enterprise Associates as well as the venture wing of Sprint PCS; wireless security provider ReefEdge attracted money from Bessemer Venture Partners plus Ericsson Venture Partners; HereJare took money from ComVentures and Lucent Venture Partners; and Mobius joined up with AOL Time Warner Ventures to back SkyPilot.

The rush by both corporate and institutional investors to fund Wi-Fi has left the sector in danger of being over-funded, said Craig Mathias, analyst at wireless research firm Farpoint Group. For instance, Mathias recently tallied more than 50 companies making chipsets for mobile broadband. Already, there have been a few cautionary events, including the notable flameout of MobileStar in October 2001.

MobileStar raised nearly \$60 million in venture money and had the original pact with Starbucks to offer Wi-Fi with lattes across the country, but the company ran out of money and closed shop before it could complete its plan. (Deutsche Telekom's T-Mobile now owns MobileStar's assets and has increased the number of its Wi-Fi hot spots from 1,200 to 2,000.)

Even though the Wi-Fi market is growing, some observers caution against VCs expecting huge payouts. "It's an established industry ... more established than most investors probably realize," Farpoint's Mathias said, pointing to the fact that Wi-Fi has existed since 1991 and has had standards on the books since 1997.

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