



Skyhook Wireless: Like Having GPS without the Car

Are you navigationally challenged? Can you (or someone you care about) no longer imagine driving anywhere without GPS? How useful would it be to have the kind of navigational capability that you have in your car available everywhere and all the time from your iPhone or BlackBerry?

And what about location-relevant content—like real-time updates about restaurants, concerts, and even speed traps? Would you be interested?

The only way a handheld device can do this is if it can figure out its own location, but that's hard to do with the satellite technology of GPS. Why? Because while satellite-based systems work great in open or nearly open spaces, the accuracy, speed, and reliability of these technologies degrade seriously around buildings and indoors.

Using terrestrial-based Wi-Fi signals instead of satellite to determine location, [Skyhook Wireless](#) of Boston, MA has developed the first positioning system that works reliably in dense urban areas and indoors giving hundreds of millions of mobile Wi-Fi users GPS-like capability and more. The Skyhook Wi-Fi Positioning System (WPS) requires no new hardware and provides instant location.

"People in metropolitan areas can now find out exactly where they are and get directions from that place to virtually anywhere in the area they want to go by using their cell phones and PDAs," says Ted Morgan, Skyhook Wireless founder and CEO.

There are more than 60 million Wi-Fi access points deployed across the country—in homes, offices, libraries, and coffee shops. Although the antennas and devices that make up this network were built and are operated by disconnected

individuals and organizations, they all communicate using radio frequency (RF). Each RF antenna has a unique address which wireless devices within "hearing range" pick up.

Skyhook, which was founded in 2003, has built a data base of more than 45 million of these antenna addresses which the company's technology uses to triangulate the wireless device's physical location in a fraction of a second, providing accuracy of 20 to 30 meters. Skyhook covers more than 70 percent of the population of the US and Canada. With WIFI as a global standard, Skyhook also is expanding into Asia and Europe.

"If people know that 99 out of 100 times, the technology is going to tell them where they are," Morgan says, "that's when mainstream mom and pop usage happens." The company earns revenue based on a per handset fee.

Bundling Skyhook technology and content in a wireless device

"We mostly bundle our technology with a device," says Morgan, "so when people buy a phone or music player with wifi it is there." Apple is using Skyhook's technology in its Maps application on both iPhone and iPod touch, and Skyhook's strategic partnerships include AOL.

"If you use AOL Instant Messenger, you can download their plug-in to us and map the people on your buddy list," Morgan says. "It's a way to keep in better touch with friends and family and plays into social networking."

Skyhook offers a free consumer product called [Loki](#) that combines the company's



unique ability to determine location with an easy way to search the Internet. "You download the tool bar to your laptop, click a button that says find me, and from there locate restaurants, shopping, Kinko's, everything that's around you," Morgan says.

With MyLoki, a service feature of the Loki platform, people can feed their location to personal blogs, social networking sites like Facebook, and location directories like Fire Eagle. The company's portfolio of location-based services is steadily expanding as content providers use Skyhook's Loki Javascript API to deliver a diverse range of content and services. Whrrl, a social discovery service, delivers real-time information and reviews of places and events as well as locations of people in friends' networks.

With more than 3 million participants, Geocaching.com, the world's largest geocaching site, uses Loki to deliver location-specific geocaching search results without participants having to know where they are. Firms like Krillion, a provider of local shopping search information, and CitySquares, a provider of hyper-local content for urban and suburban communities, use Loki to pinpoint users' locations and tailor information that is relevant.

San Diego-based Trapster, the world's first speed trap sharing social network for mobile phones, uses location identification to allow individual drivers to be more aware of local speed limits and avoid hefty fines and penalties.

Skyhook: A CommonAngels portfolio company since 2005

Skyhook completed a third funding round in June of 2007. Previous rounds included an angel round of about \$2 million in 2005 and a traditional VC round at the end of 2005. The three rounds total approximately \$17 million. The recent investment provides funds to support the company's growth.

"CommonAngels has come in on every round," says Morgan, who has been starting up companies for more than a decade. "They are extremely helpful and fill a really important gap. They take calculated risks with new ideas that the VCs just don't do. We could not have gotten this far without them and the other angels doing that early on. The big difference in angel investors and venture capitalists is that they like to be involved with the start up process. They personally want you to do well; they are cheering you. CommonAngels has had a great positive impact on the Boston area. I know this from personal experience."

More than a half-million people downloaded Loki over the last year.

"Skyhook is a young company with an exciting application of Wi-Fi technology," says James Geshwiler, managing director of CommonAngels. "They are tapping into the content-driven segments of the wireless market. The company has done a terrific job of partnering with value-added services. Things will get especially interesting as people start using their phones to track their kids' locations and for emergency response."