

# We Know Where You Are

*With new software, Web sites can tell what city a visitor is coming from. That can be useful information.*

By Riva Richmond

**T**HE FREEWHEELING, borderless Internet has long allowed businesses to think globally. Now a growing number of companies are using Web technology to help them act locally.

Companies increasingly want to know where visitors to their Web sites are located so they can better serve them—by, for example, ushering them to pages in their native language or offering them information, promotions or products pertinent to the local area. Other firms need to comply with laws or contracts that require they steer clear of customers in certain states or countries, while still others are seeking to thwart online criminals trying to impersonate clients.

To accomplish these goals, companies are erecting virtual borders with geolocation software, which analyzes a visiting computer's numerical Internet Protocol address to get a read on that Web user's city location. Armed with this information, businesses can usher people to appropriate Web pages or stop them from accessing an account or service.

Privacy-rights advocates consider IP addresses personally identifiable information, and they are concerned about systems that retain this data because of the potential for unwelcome scrutiny of people's Web-use habits. But the major geolocation companies say they don't track Web usage by IP address; rather, they simply maintain databases of IP addresses and their associated geographic locations.

## Creating Connections

The technology isn't perfect—some companies and Internet-service providers, including Time Warner Inc.'s AOL, use IP addresses that correspond to their headquarters' locations, not those of their end users. And some people mask their IP addresses for privacy reasons. But with accuracy rates in the low-to-high-90% range, geolocation technology is bringing a new level of maturity to the Internet—delivering more sophistication and function to Web sites,

enabling new businesses to operate online and enhancing Internet security.

With 1.2 billion people around the globe now connected, "the Internet is starting to reflect the world," with its many languages, competing interests and rules and regulations, says John Yunker, president and chief analyst at San Diego consulting firm Byte Level Research LLC. "Those boundaries are coming back," he says, and geolocation is the "air-traffic control" that lets companies route travelers.

Consider Ace Hardware, a cooperative of more than 4,600 dealer-owned hardware stores that overhauled its Web site in February 2007. Using geolocation software from Digital Element, a unit of Norcross, Va.-based Digital Envoy Inc., Ace now gives Web-site visitors a list of stores within a 30-mile radius of their location. A click takes visitors to a page showing the stores plotted on a Google map, and from there, they can drill down to the various stores' Web sites for information such as hours of operation and driving directions.

Dana Kevish, Ace's e-commerce marketing manager, says geolocation is important to Ace because some 75% of online sales go through local stores—where Ace will ship products free—and 30% of customers who pick up an online order make an additional purchase in the store. Having geolocation capabilities "helped us create a connection between the consumers and the local store," she says.

Ace plans to expand its use of the technology this winter by directing Web visitors to one of five or six different home pages, depending on their location. People in cold climates will see a home page featuring snowblowers, for example, while Floridians might see patio furniture.

Denver-based news site Examiner.com, meanwhile, uses software from Quova Inc., of Mountain View, Calif., to display geographically targeted news and advertising to more than two million monthly visitors from 57 local U.S. markets. A Web user's IP address determines the edition that is displayed, and advertisers can pick the editions in which they want their ads to appear.

Other companies are using geolocation to gauge the impact of ad campaigns, even offline ones. For instance, a spike in Web-site visits from New Yorkers following a series of ads in New York newspapers would suggest a successful campaign.

Still, geolocation technology won't pinpoint Web visitors' locations beyond the city level, which won't satisfy advertisers seeking to target potential customers by neighborhood or street. "That might be the next forefront people might try to push toward," says Dane Walther, director of custom engineering at Cambridge, Mass.-based Akamai Technologies Inc., which has a geolocation product. "There's certainly interest from marketers, who always want to get as detailed, as local as they can."

## For Some, a Lifeline

Geolocation technology allows companies to use the Internet as a distribution channel when contracts or laws restrict them from doing business in certain geographic locations.

Major League Baseball's Internet arm, MLB Advanced Media LP, has used software from Quova to build a \$160 million paid-subscription business streaming live baseball games to fans.

Because each team has sold the broadcast rights to games in its local markets, MLB.com is permitted to stream games only to people living outside of the local markets of the teams playing. To confirm customers' locations, MLB.com uses Quova software in addition to information such as shipping addresses from past product purchases and addresses tied to credit cards.

MLB.com says it errs on the side of caution, denying about 15% of streaming requests it gets. While that means it sometimes blocks legitimate users, the error rate is perhaps 1% or 2%, and those people can call to request access, says MLB Advanced Media's chief executive, Bob Bowman.

"Fortunately for us, there are lots of fans that don't live in the town of the club they cheer," says Mr. Bowman, who estimates they amount to about half of each team's fans.

Ultimate Blackjack Tour LLC of

Las Vegas is another company that uses geolocation software from Quova to help weed out certain would-be customers. The company runs a subscription-based business in which people compete for prizes by playing blackjack and poker online. It can sell the service only to people in the 38 states that allow sweepstakes; visitors from the other 12 states must get a version of the product without prizes.

The accuracy of the information is vital to Ultimate Blackjack Tour because mistakes could mean fines by state governments and black eyes for business partners. Although looking at IP addresses is "not the end-all solution," it is an automated and cost-effective first line of defense, says Brett Calapp, Ultimate Blackjack Tour's president. To improve accuracy, the company also examines the type of Internet connections its customers are using and whether they have been routed through a proxy server that might be masking their location.

## Thwarting Fraud

For financial-services and e-commerce companies, geolocation has proved to be a valuable tool in their 24-hour battle against fraud. The technology allows them to flag activity if someone in, say, Russia tries to access an account or use a credit card of a customer who lives in Ohio. They can block the transaction or ask a security question to give the Ohioan access in case he is visiting Moscow.

For e-commerce sites, the goal is threefold: to reduce fraud, reject as few legitimate orders as possible and minimize costly manual reviews of transactions.

Marie Alexander, Quova's chief executive, says one manufacturer told her that it has found a transaction to be fraudulent in 73% of cases where the state in the credit-card billing address doesn't match the state associated with the IP address. "It's a huge savings to pull those [transactions] out," she says. ■■■

Ms. RICHMOND IS A WRITER IN NEW YORK.