

## Verizon Unveils Cell Phone Navigation

**ARTICLE DATE:** 12.07.05

By [Bill Howard](#)

Don't have a \$1,500 GPS system in your car or a \$750 device on the dash? No problem. Soon, anyone with a cell phone will be able to have a navigation system with turn-by-turn routing and voice instructions. That's the promise of Verizon's new service, VZ Navigator, which will be available as a \$10-a-month or \$3-a-day location-based service (LBS). The \$3-for-24-hours service will provide an option for someone who needs the navigation service for just a day or two, while traveling. The monthly fee is per phone; initially, Verizon is offering no discounted family plan for multiple phones.

### Coming Soon to a Phone Near You

The Verizon service is launching initially on only one phone, the just-announced Motorola V325, a mid-range \$80 handset. Other phones will follow in 2006. Verizon wouldn't say if existing phones with GPS receivers can be adapted; analysts think that's unlikely, though, because carriers generally want their subscribers to buy new phones and lock in service contracts for another year or two, to get new features.

Analysts enthuse over the potential for GPS-equipped cell phones to get people where they're going, and provide incremental revenue to carriers, who already sell ringtones, MP3s, videocasts, and downloadable games. With 200 million cell phones in the U.S., every 1 percent of the market that signs on for cellular navigation at \$10 a month provides companies with \$240 million in annual revenue.

Telematics Research Group, a Minneapolis firm, projects that navigation services could be used on 15 to 20 percent of the nation's estimated 300 million phones in 2011 – which would bring in \$5.4 billion to \$7.2 billion annually, at the \$10-a-month rate. In comparison, there are 230 million vehicles in the U.S. now; 2 percent have navigation, and the take rate on new cars is about 7 percent of the 17 million vehicles sold yearly, TRG estimates, with little recurring revenue. Few people pay the \$100 to \$200 for update discs because they cost so much; and because so few people buy them, the price remains high. There are also about 1 million portable navigation systems (including Garmin, Magellan, and TomTom) and 0.8 million PDA smartphones, TRG says.

VZ Navigator uses technology called AtlasBook developed by Irvine, Calif.-based Networks in Motion using map data from Navteq and back-end support from Autodesk. Two others already provide cell phone-based navigation, but on a much smaller basis: Motorola's ViaMoto, an older technology, runs on the Nextel network, and TeleNav Inc.'s TeleNav runs on the Nextel and Sprint networks and may also be offered on Verizon in 2006.

To start, the subscriber downloads the VZ Navigator applet through Verizon's Get It Now service. Then when you want to go places, you invoke VZ Navigator. Use your phone's keypad to enter a city and street address. If you know the ZIP code, that can be a five-character shortcut replacement for city and state. The destination can also be a point of interest. The phone gets a quick fix on your location by triangulating on the nearest cell towers (which are all GPS-equipped on carriers using CDMA technology, meaning Verizon and Sprint). Meanwhile, the phone company servers download mapping information to your phone, typically a few kilobytes that download in less than a minute of chargeable airtime. Your handset disconnects from the network, the phone locks onto the orbiting GPS satellites, and routing begins.

Subscribers get a map that moves as they travel. When there's an intersection or turn, an icon view pops up showing directional arrows, coupled with voice prompts. Pressing the OK button repeats a missed command. As with integrated car navigation, you can zoom in or out on the map. And the phone display orients itself with the direction of travel.

If a call comes in, navigation suspends until you hang up. You can look up gas stations, restaurants, and ATMs while en route, which uses a bit more airtime. If you want a moving map centered on your current location, that's an option, although a "follow me" map in use for 10 minutes uses 10 minutes of airtime. The service offers a pedestrian mode, but with one big drawback: Until compasses are built into phones later in 2006, the phone doesn't know which way is north, so directional arrows might be confusing, and the "turn right" prompt presumes you're headed in the right direction. (Cars move fast enough for GPS to understand compass directions.)

Andy Seybold, president of Outlook 4 Mobility, a California consultancy, who has worked with VZ Navigator supplier Networks in Motion, says, "They have duplicated the features and functions of a \$2,000 nav system

very well." Seybold says he used VZ Navigator alongside a Denso-based Lexus navigation system, generally agreed to be one of the best in-car nav systems. "I got exactly the same route information, the same time, the same distances, everything," he says.

Seybold says phone-based navigation isn't as convenient as in-dash nav systems, though; address entry in particular can be more difficult. He thinks cellular navigation will be more compelling to around-town users who know where they're going, when they can get real-time traffic information as well and see alternate routes around a jam. That could happen in as little as a year, as transportation departments switch away from the few embedded roadway sensors in use (\$1 million a mile to build) to reporting services such as IntelliOne of Atlanta that measures how quickly (or slowly) cell phones move from cell tower to cell tower, strips out personal information (phone numbers), and reports it as average highway speed; or to Microsoft spinoff Inrix, which projects delays based on previous instances of two-car accidents or traffic leaving a rock concert. This would also give subscribers a more accurate estimate of time to destination.

Egil Juliessen, another principal with TRG, agrees. "If you have real-time traffic information, that changes your view of navigation. Just knowing why you're stuck, even if there's no alternate route, takes away some of the misery."

"[Cell phone navigation] is for all kinds of people, from the soccer mom to traveling executives who find the need for driving instructions," says Phil Magney, a principal with Telematics Research Group. "For the [cellular] companies, it's going to increase the average revenue per user." Lee Daniels, Verizon's director of business products and solutions and VZ Navigator's overseer, lives in Maryland and, with his wife, spends hours each work driving school-age kids to events in the family minivan. "This is the first wireless data app my wife has said she'll use," he says.