Project turns GPS phones into traffic reporters

Researchers at UC Berkeley and Nokia will test a new system, called Mobile Millennium, which uses GPS phone data to monitor traffic conditions.

Robert McMillan (IDG News Service) 10 November, 2008 08:32
Tags: research, gps

Researchers from Nokia and the University of California in Berkeley will go live with a new project this week that aims to cull GPS data from thousands of mobile phones in order to tell drivers which San Francisco Bay Area roads are backed up and which are moving along.

Called Mobile Millennium, the project will be opened to the public on Monday.

Researchers hope that thousands of volunteers will download a free Java program that figures out by their movement and location when they are driving, and then transmits that information to the project's servers, which then crunch it into a Bay Area traffic map. The software uses algorithms to determine when people are moving or if they are stuck in traffic or stopped by the roadside, for example.

California has already invested heavily in sensors that help monitor traffic conditions on major roadways, but they're not everywhere. By collecting traffic information from GPS (Global Positioning System) phones on roads that don't have sensors, the team hopes to gain insight into places that are now blind spots for most commuters.

Researchers will start by looking for data on heavily trafficked commutes such as Page Mill Road and the Oregon Expressway, which cut through the heart of Palo Alto, California. If enough volunteers download the software, the researchers could eventually build a comprehensive picture of Bay Area traffic conditions.

"The whole concept here is that if everyone shares just a little bit of what they're seeing ... then everyone can benefit by seeing the conditions ahead of them," said Quinn Jacobson, a research leader with Nokia in Palo Alto.

The system doesn't require many users, but it helps if they're spread out, as researchers will need the right concentration of reports. The Mobile Millennium team expects to have 10,000 users by April. "At that rate we'll see many of these arterial roads with accurate, real-time data," Jacobson said.

While the idea of streaming data about their whereabouts may make some people uneasy, researchers say they've taken steps to keep the system anonymous. None of the data in the system can be tied to a particular mobile phone, they said.

The researchers have been testing the traffic reporting system every few weeks over the past year, including a large field-test in February.

Mobile Millennium's data will be available on the Web, but users who want the best data will have to download the Java software, Jacobson said. The software will eventually work on most GPS-enabled phones that run on GSM (Global System for Mobile communications) networks, such as those from T-Mobile and AT&T. On Monday, the software will run on Nokia and BlackBerry phones, but the team expects to add many other devices to this list.

The team is discussing an iPhone port as well, although this will not be available on Monday, Jacobson said.

Add to Google

Print this story
Digg this story

Computerworld Buyer's Guide - Vendors Matched to this Article

Dimension Data

More about gps
- Google's new gBall bounces into action
- TomTom sues Microsoft for patent infringement
- Navigon talks up the role of voice in safe driving

More about gps >

More about research
- Skype is largest international voice carrier, says study
- Researchers: cheap scanners can 'fingerprint' paper
- Bathrooms become smarter with touch screens

More about research >

Top Reviews   **Most Popular**
- BlueAnt Supertooth Light
- Panasonic PT-AE1000
- BlueAnt Supertooth 3
- InFocus X10
- RIM BlackBerry Bold 9000
- Sony Ericsson W890i

Executive Guides

CIO
Exploring the Future State of the CRM Market
STRATEGY GUIDE

- Exploring the Future State of the CRM Market

Whitepapers

Read up on the latest ideas and technologies from companies that sell hardware, software and services.

Most Popular   IT Media Releases
- How to get fired
- Forrester: iPhone corporate users happier, more productive
- 1 in 5 Windows PCs still hackable by Conficker
- Rise of the netbook
- The A-Z of Programming Languages: Falcon

Whitepaper Topics

Complex event processing CRM Data security Event processing Event processsing Insider abuse Instant Messaging internet security performance security server SharePoint security
more tags

Most Popular Whitepapers
- Data Center Eco-Nomics
- Reducing the risk of insider abuse
- The changing threat landscape
- Comparing leading email and SharePoint security solutions
- 5 steps to getting started with data loss prevention

Computerworld Community Comments
- **Anonymous** on Forrester: iPhone corporate users happier, more productive:
  Flash is dead. Move on.
- **helen.keneth** on Recruiter's Secrets: 6 Job Hunting Tips for a Tough Market:
  Hi
- **Anonymous** on Mammoth digital array blasts out Star Trek Australian premiere:
  That is low res for cinema.
- **Anonymous** on New Casio cams have built-in green screens (sort of):
  Casio G-Shock x LRG Collaborated Watch (DW-6900LRG-2AJR)

Because Mobile Millennium phones do a lot of traffic reporting, only users with unlimited data plans are advised to sign up.

Computerworld Buyer's Guide - Vendors Matched to this Article

Dimension Data

More about [Leader Computers](#), [BlackBerry](#), [T-Mobile](#), [Nokia](#), [T-Mobile](#), [Leader](#), [AMP](#),

---

Comments

Post new comment

[Login](#) or [register](#) to link comments to your user profile, or you may also post a comment without being logged in.

Your name:

Anonymous

E-mail:

The content of this field is kept private and will not be shown publicly.

Homepage:

Enter the fully qualified URL, eg. http://www.example.com/

Subject:

Comment: *

- Web page addresses and e-mail addresses turn into links automatically.
- Allowed HTML tags: <a> <em> <strong> <cite> <code>   <dl> <dt> <dd>
- Lines and paragraphs break automatically.

[More information about formatting options](#)

[Save] [Preview]

Zones

Zones provide focussed content from Computerworld and leading technology partners.

- **Wireless World Australia 2009**
- **Motorola Zone**
- **Webinar Best Practice Zone**

Newsletter Subscription

Newsletter Subscription

Sign up for our Computerworld newsletters!

☑ **Computerworld Today [Twice Daily]**
Computerworld's twice-daily news service keeps you in touch with the latest, most important headlines from Australia and around the world.

☑ **Virtualisation [Weekly]**
Keep up with the latest virtualisation technologies, products, news and features.

☑ **Mobility & Wireless by Computerworld [Weekly]**
A weekly service providing detailed coverage of the latest innovations and developments in the wireless industry.

[Join]

RSS Feeds

[Computerworld Today](#)
[Show all RSS feeds](#)

SPOTLIGHT:
Free Webinar Research Library

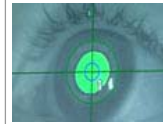**Top Trends in Business Lead Generation in 2008: Webinars Take Centre Stage** (Quantum Leap Marketing)

How to Address Today's Top Marketing Challenges with Webinars (Frost & Sullivan)

B to B Marketing in 2008: Trends in Strategies and (Forrester Research)

GoToWebinar

Videos

🔲 **Students develop low-cost, open-source eye tracking system**

🔲 **Keyboard blocks typos**

🔲 **Danish researchers have modified a mower so it can be controlled with a Wii remote**

🔲 **Japan's space agency shows off its newest supercomputer**

🔲 **CTIA: Wrap-up**

Most Commented

- **Government spends $43 billion to establish National Broadband Network**
- **Mammoth digital array blasts out Star Trek Australian premiere**
- **Google's new gBall bounces into action**
- **Linux shortlisted for DET netbooks, beaten by XP**
- **ISPs hail National Broadband Network announcement**

[More >](#)

Get a job

careerone

- [Contract Dialogue Developer 2...](#)
- [Field Engineer / Consultant](#)
- [Cisco Specialist Network Engineer](#)
- [Service Delivery Manager](#)
- [Senior Account Manager - Global...](#)

Whitepaper

Towards a greener data center
Download this green white paper and learn how to create a greener data center. Learn strategies to reduce your