

MONEY



XM satellite radio

Service is raising its prices after losing \$20.4 million last quarter. Fees will be on par with Sirius, but discounts are still available

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Harnessing the power of geography

TECHNOLOGY: Geographic information systems poised to be the next big thing

BY JIM JAMIESON
BUSINESS REPORTER

Ron Lake sees a future where the impact of a disaster such as Hurricane Katrina can be greatly reduced by the Internet-powered availability of geographical information.

"The ability to respond to those kinds of events quickly is something we can all understand," says Lake, 57, a pioneer in the field of geographic information systems and president of Vancouver-based Galdos Systems [www.galdosinc.com].

"In a disaster, piecing together information across jurisdictional boundaries is often quite difficult and it can result in people losing their lives. The information is there, but it's not connected."

The folks at Google also have a vision for harnessing the power of geographical data — called Google Earth, a web-based product that allows users to share the world with each other.

Just how this will be further marketed to the consumer is yet to unfold. A year ago, about a month after Google Earth launched, Microsoft introduced its answer to Google — dubbed Virtual Earth. Clearly, the big boys see the value in this space.

Many of those in this evolving industry will be in Vancouver July 24-28 to attend GeoWeb 2006, a conference organized by Lake. It is expected to triple the attendance of last year's event, reflecting the growing interest in the area.

Gathering geographical information is nothing new. It has been done extensively by various levels of government and private companies for decades.

What has everyone excited is connecting those databases through the Internet to provide a new depth of information with the potential to save lives, safeguard resources and make commercial products more compelling.

"Google Earth and Microsoft's Virtual Earth have really raised the consciousness of the public, but this [concept] is still in its infancy,"



Ron Lake, founder of Galdos Systems, is a pioneer of web-based geographical mapping. He is organizing the Geo-Web conference in Vancouver later this month. GERRY KAHRMANN — THE PROVINCE

says Amin Kassan, a director with the B.C. Integrated Land Management Bureau, a division of the provincial Ministry of Agriculture and Land.

The ministry, which mapped the province extensively from the air in the 1980s and '90s, supplies geographical data to clients such as B.C. Ambulance Service, Insurance Cor-

poration of B.C., forestry, mining and oil and gas companies.

"What if your cellphone could ask where is the nearest Starbucks or swimming pool," Kassan says. "Or if there's a spill in a certain stream location, what are the effects downstream and the conditions upstream?"

"You could be doing this any-

where in real time with a portable unit. The applications are limitless."

The hurdles are also considerable. "The problem is that the technology has not developed in a way to make it easy to integrate and share geographic information," Lake says.

"It's like Ford, Chev and Toyota all running on different gasoline, so you'd have to find a Toyota gas sta-

tion to fuel your car."

Lake has been working to find a solution since 1998 when he launched Galdos and began developing a computer language called GML (geographic markup language) — a common standard allowing geographic systems to exchange information via the Internet. GML has now become a global standard.

"The move now is to make information accessible and integrate it so it's available on demand," Lake says.

"But there are tons of impediments to doing that. Some of them are technical but some are privacy, some are security."

These social issues — and others — will be hashed over at the GeoWeb conference, but industry stakeholders agree the technology must be more widely adopted before major evolution can occur.

Part of that will be driven by the likes of Google, Microsoft and Yahoo — as the consumer becomes the next big market for so-called location-based services.

But Lake says there are challenges there, too.

"The location-based applications for cars and cellphones haven't been able to provide the kind of data currency that most people would want to have," he says. "The tolerance for lack of accuracy is pretty low."

"You wouldn't use the Yellow Pages too many times if half the companies in it didn't exist."

As well, there has yet to emerge a killer application to get consumers excited about the technology, he says.

Burnaby-based Telus Corp., one of several other B.C. companies involved in the field, has a keen interest in geographic technology. It launched Telus Geomatics in 1997 with seven employees and that has grown to 75. It has several products — primarily Geo Explorer, aimed at government and large businesses.

Telus also offers asset tracking systems using the technology.

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