

Israel sets sights on next-generation Internet

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In this photo taken Monday, Jan. 9, 2012, an employee views a computer screen showing a helicopter and engineers of the Israeli Electric Company installing devices, at the Israeli Electric Company head-quarters in Tel Aviv, Israel. One of the most wired nations on the planet is about to get even more connected. Israel's state-owned electric company is finalizing plans to build a nationwide high-speed broadband network, hoping to put the country at the forefront of the next generation of Internet technology. (AP Photo/Ariel Schalit)

(AP) -- Israel is often referred to as "Startup Nation," thanks to its long history of high-tech breakthroughs produced by scrappy little companies. But in one critical area, the speed of Internet connections, Israel has fallen behind other tech-savvy countries.

In the coming months, Israel's state-owned electric company hopes to change this by rolling out a nationwide, high-speed broadband network. Exploiting the small size of the densely populated country, the effort aims to put Israel at the forefront of the next generation of [Internet](#)

[technology](#).

Experts say the fiber-optic lines can provide connections of 10 to 100 times current speeds, transforming the way the Internet is used in such areas as entertainment, business and health care.

"All the developing countries that have a vision for 10 years ahead, or 20 years ahead, understand that the name of the game will be communications, broadband communications, very fast communications," said Tzvi Harpak, the electric company's senior vice president for logistics.

The technology is known as "fiber to the home," or FTTH. Using fiber optic lines, it can provide connection speeds of 100 [megabits](#) to a blazing 1 [gigabit](#) per second. Today, the typical broadband user in the developed world connects at five to 10 megabits using older cable and DSL connections.

Oliver Johnson, chief executive of British research firm Point Topic, said FTTH technology is the "gold standard" of the next generation of broadband service. Although cable and DSL lines can be upgraded to higher speeds, FTTH has smoother transmission of data and a much higher upside in terms of speed, he said.

"It's easier to go higher. It's future-proofed," he said.

The added bandwidth could transform the way the Internet is used. Massive video files will be downloaded instantly, opening the door for high-definition and 3D movies to be delivered more easily.

Since the system will have equally fast upload speeds, individuals or businesses will also be able to deliver pictures, videos and other large files. In South Korea, where FTTH lines are common, users rave of the

lightning fast downloads and crystal clear Skype connections.

This could mean much-improved videoconferences in the workplace, easy sharing of information in complicated engineering tasks, doctors monitoring their patients or assisting in operations by long distance. It will also likely speed up the migration of information, photos and video from personal computers to the "cloud," making it easy for users to access their information from any Internet connection.

Around the world, decision-makers are reaching the conclusion that faster connections will be essential for economic growth. A number of countries are engaged in a gold rush of sorts as they build new networks with FTTH technology.

"Everyone feels that bandwidth will be this commodity down the road. If you don't have it, you'll be out of luck," said David St. John, spokesman for the FTTH Council, an industry trade group based in the U.S.

FTTH technology was introduced more than a decade ago, but adoption has generally been slow because of its high costs. As costs have gradually come down, particularly in densely populated areas, it has begun to take off. And when new networks are rolled out, it makes more sense to go with the new technology.

According to the council, heavily urbanized South Korea leads the world with just over half of households connected to FTTH lines, followed by Japan and Hong Kong, both at about 40 percent. In the U.S., about 7.1 million homes, or 6.6 percent, have the technology through services like Verizon's FiOS.

Not surprisingly, South Korea leads the world in average broadband connection speed at 13.8 mbps, followed by Hong Kong and Japan, according to Akamai Technologies Inc.'s closely watched "State of the

Internet" report. The U.S. is ranked 16th.

Israel, dominated by DSL and cable broadband services, is No. 28, with an average connection speed of about 4.5 megabits per second.

According to Point Topic, 92 percent of Israeli homes have broadband connections, a respectable number but only about 19th in the world.

Despite its small size, Israel is one of the world's leading high-tech centers.

Israeli companies have created leading products in areas such as security software, instant messaging and e-commerce. Microsoft Corp., Intel Corp. and other technology giants maintain operations here, and Apple Inc. is reportedly planning its first overseas development center in Israel. Akamai itself was co-founded by an Israeli-American.

With so much at stake, it is not surprising the government is backing Israel Electric Corp.'s effort to roll out the fiber-optic network.

"Providing high-quality, fiber-to-the-home bandwidth for consumers all over Israel (especially in peripheral areas) is a national interest as it promotes economic growth, education, provision of government services, social welfare," said Eden Bar-Tal, the director general of Israel's Communications Ministry.

Despite the relatively late start, Israel is well-positioned to quickly join the world's leaders. About 92 percent of the 7.8 million people live in urban areas, according to government statistics, making it easier to connect large numbers of people relatively quickly.

The electric company also has a key advantage in being able to build on top of its existing infrastructure of overhead wires. That avoids the costly process of having to dig up existing cables or laying down new

wires.

It hopes to have 10 percent of the country wired by next year, and two-thirds of the country covered within seven years.

If Israel can stick to that schedule, it would be "among the leading countries" in terms of deployment, said St. John of the trade council.

Harpak, of the electric company, said IEC is seeking bids from potential partners to help build the network. Companies have until Jan. 31 to submit their business plans.

Under guidelines set by the government, the partner will hold a 51 percent stake in the new company, while the electric company will hold a 49 percent stake. Bidding starts at 300 million shekels, or around \$75 million, said Harpak, who is heading the election committee that will choose the new partner.

The election committee will review the proposals and hold an online auction by midyear to select its partner, Harpak said.

IEC is banned from identifying any of the potential suitors, but local media reports have said Telecom Italia SpA, BT Group PLC and local companies Elbit Systems Ltd., Rapac Communication & Infrastructure Ltd. and private equity firm Tamares are all in the running.

The new company is to build the infrastructure, while allowing Internet service providers to actually market the service to consumers.

"There's been quite a lot of interest," said Philippe Guez, Managing Director at Rothschild, the investment bank that is acting as the financial adviser to the election committee. "We believe and hope the government and the Israel Electric Corp. will make the appropriate changes in order

to make this wonderful project happen."

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