

New technology to deliver high-speed Net access via power lines

POTOMAC, Md. (AP) — The walls in a one-story brick home in suburban Washington don't talk but their power outlets do.

From those outlets pour streams of digital video, interactive games, online radio stations and services familiar to people who use cable or telephone modems to get high-speed Internet connections. This technology that delivers broadband through ordinary electric wiring should be commercially available to some consumers this year.

"This is within striking distance of being the third major broadband pipe into the home," said Federal Communications Commission Chairman Michael Powell, who visited the house Wednesday to get a preview of the technology.

The home is part of a trial project run by Current Technologies, a company based in Germantown, Md. The company, working with Potomac Electric Power, is providing broadband over power lines to about 70 homes in Maryland. Another trial offers the service in suburban Cincinnati.

Utility companies including PPL in Allentown, Pa., and Ameren in St. Louis also are conducting test programs with consumers.

Broadband can be up to hundreds of times faster than dial-up service and can deliver a wider range of services, including high-quality video.

Powell said the FCC is excited about the power line technology and is studying whether it needs regulation. No current rules prohibit the technology, but the FCC is concerned that Internet transmissions carried over power lines could emit signals inside and outside the home that cause interference.

Companies have struggled for years to make the

technology work. Only recently have they overcome technical hurdles such as interference on the power lines and getting around electrical transformers that block broadband signals.

"Power lines are a very difficult medium to send communications signals on," said Bill Blair, a utilities project manager with the Electric Power Research Institute. He said the technology is still unproven as a broadband competitor.

"It is potentially a huge business — if it works," he said.

Jay Birnbaum, president of Current Technologies, said his company will offer the power line broadband this year, but he didn't know where the service would be available.

He said the cost will begin around \$30 for an always-on connection more than four times faster than a dial-up modem, he said. Faster services that can match cable modems would cost more.

Cable modems and telephone digital subscriber lines, or DSL, typically cost about \$50 a month.

Powell has said he wants more broadband competition to lower consumer prices and bring high-speed communications services to more people.

In the Maryland test program, the company uses a fiber-optic line to inject an Internet signal into a power line after it has left a power station. The signal then moves to neighborhoods, using equipment on power poles to leapfrog transformers and flow into homes.

"Every outlet in the house becomes a broadband outlet," Birnbaum said.

The only extra equipment a consumer needs is a modem that plugs into an electric outlet and connects to a computer or Internet gadget. About the size of a deck of cards and costing less than \$70, the power line modems are already in stores for use in home computer networks

that use electric wiring.

The wiring in the test home is more than 40 years old and required no changes besides the modems, Birnbaum said.

Powell watched as a Current Technologies employee simultaneously used a special stereo to listen to an Internet radio station, showed a high-quality video of a movie streamed from the Web and played a motorcycle video game in live competition with others online. All the services flowed through a single power outlet.

"I love this stuff," said Powell, who described himself as a "techno-ecstatic geek."

Asked if he would put the power line service in his home, Powell said: "Yes, I would. I'm a little bummed it's not in my area yet."

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