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Finns Watch Internet TV

With an ATM backbone, Telecom Finland is providing multimedia services over the Internet

by Bob Emmerson

This is the scenario: The Internet is growing by gigantic leaps and bounds. Today's PCs are powerful multimedia machines. An ATM backbone can simultaneously deliver multimedia data to several thousand clients. Compression technology squeezes audio and video data down narrow pipes. So why not deliver video, live radio, and music over the Internet?

That's the thinking behind the world's first nationwide digital media pilot, and Telecom Finland is doing it. The communications firm is providing business information, educational material, and news programs, including audio and video, to 400,000 Finnish Internet users. In addition, the almost 4000 business sites that use the nationwide LAN interconnect service (DataNet) can access the same content at ATM and frame-relay speeds. The trial started last November and will be free until late this year.

Telecom Finland is well placed to handle such an ambitious project. Finland has always had an unregulated telecommunications market. It has the most advanced telecom infrastructure in the world and the lowest rates in Europe. It was the first to offer long-distance commercial ATM services and has had a high-speed ATM backbone in place since 1994. Telecom Finland is also the country's largest Internet access provider. Therefore, the company could set up a nationwide media trial without having to build an expensive new infrastructure.

"The goal of the media pilot network is to understand what kind of multimedia

services Internet users will find useful," says Mika Uusitalo, head of the Medialab at Telecom Finland. After the end of the trial, the telecommunications operator and content providers will start to charge users; Telecom Finland is currently researching new payment methods and digital cash.

In the trial's first six weeks, more than 200,000 users downloaded the software needed to receive audio or video data. Content providers include the national MTV3 TV channel and Helsinki Media, the biggest cable TV company in Finland. Services include open university courses as well as music and news programs aimed at young people. Even the New Year's speech of president Martti Ahtisaari was transmitted live on this new digital medium. Moreover, a digital media-distribution system enables anyone to become a content provider, be it publishing, radio, or TV programming.

The delivery of video and live audio is based on the StreamWorks broadcasting system from Xing Technology (Arroyo Grande, California, U.S.). StreamWorks compresses data to allow for the scaling of video streams down to lower bit rates. It produces acceptable video quality over 14.4- and 28.8-Kbps modems. With ISDN, however, the system delivers high-quality images and smooth video at 112 Kbps and proves that the Internet can be a serious narrowcast TV medium for small businesses and professionals working at home.

You can check out Telecom Finland's related Web site, with an overview in English, at <http://www.ml.tele.fi>.