

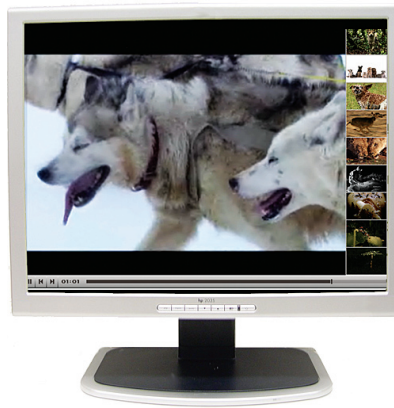
## What does it cost to put a video picture on one viewer's screen?

In broadcast economics, every additional viewer is unalloyed good news, but on the Web there's a cost of technical services and bandwidth for each one receiving a video or audio stream. Does each online viewer gained translate into a net loss, or are the costs so low that they can be covered easily by selling underwriting or ads?

Fortunately, streaming costs are surprisingly low and falling. To illustrate the costs, *Current* asked Kiriki Delany, president of StreamGuys, a northern California company that works with numerous pubcasters, to estimate typical per-viewer costs for two videos of different screen size, detail and length.



■ **Cost of a three-minute low-to-medium-quality video with a small screen: 1/10 to 3/10 of a cent.** (A 320 x 240-pixel screen, with a sub-normal video frame rate, needs a stream of 256 kilobits per second.)



■ **Cost of a higher-quality, hourlong video filling a computer screen: 6 to 16 cents.** (Such picture quality requires a stream of 700 kbps.)

These costs are based on typical costs billed per gigabyte transferred, 20 to 50 cents per gigabyte, Delany said. These are turnkey prices, including operation of servers and other equipment, not just raw bandwidth. Higher and lower prices can be found based on volume. Streamers may pay less per viewer if they're billed on the basis of their peak Mbps rate, he said, but comparing prices under the two pricing systems is not straightforward.

Like so many costs online, streaming costs are falling. Four years ago, service providers were citing prices around \$1.40 per gigabyte transferred.

—Steve Behrens

