

Thumbs Up for TiVo Sharing

It's been unclear whether TV viewers saving shows to a video hard-disk recorder had the right to send them over their home network for viewing in another room — let alone over the Internet. Given copy-right-protection rules approved earlier by the Federal Communications Commission (FCC), Hollywood studios had asked the agency to block a scheme proposed by TiVo that would allow subscribers to share recorded TV content with a limited circle of friends and family. In a big win for home-recording-rights activists in general and TiVo lovers in particular, the FCC ruled in August that viewers can indeed distribute shows within their home networks as well as through the Internet to other TiVo units on a subscriber's account.

The movie industry and the NFL strenuously opposed what's known as TiVoGuard Digital Output Protection Technology, claiming that it would spark widespread piracy. But the FCC held that enough protections were built in "to adequately protect digital broadcast TV content from indiscriminate redistribution."

Besides TiVo, the FCC gave a green light to a dozen other digital output technologies and recording methods that it deemed would still be compatible with its requirement that a "broadcast flag" be embedded in digital content to prevent unauthorized distribution over the Internet. Among them were versions of Sony's MagicGate for the company's Hi-MD and MemoryStick products; RCA's SmartRight, which creates a personal private network for each consumer's home; Philips and HP's Vidi Recordable DVD Protection System for recording shows to DVD; RealNetworks' Helix Digital Rights Management (DRM) and Microsoft's Windows Media DRM for downloaded content; and JVC's D-VHS format.



Local TV Anywhere

Years ago, when I was the road manager for Kiss, I met inventor and visionary Ken Schaffer (above). At the time he had just perfected his invention, the Schaffer/Vega wireless microphone and guitar pickups, and was introducing the system to Kiss. He came upon this idea while hanging out with the Rolling Stones, who were trying out a wireless system on tour and having a problem with radio-frequency interference from other sources, like taxi dispatchers. Schaffer felt he could do better — and he did. The Stones and Kiss bought those early Schaffer/Vega systems for \$4,400 each, and the rest is history.

Years passed and I hadn't thought about Ken till I ran into him in Manhattan. He told me about another invention of 20 years ago, a satellite TV system that let American agencies and scholars eavesdrop on internal Soviet TV. Then he told me about his newest invention, TV2me.

"You can watch your local television from anywhere in the world," he said. "You can be in Bombay and watch the New York Rangers on the MSG Network — live! Change stations on your cable box or satellite receiver as if you were at home!"

A touring British rock star in America can catch every game his football team in England plays."

The system consists of special hardware on the "home" end (where you subscribe to the local service you want to watch) and a PC running custom software on the "away" end. A broadband connection is required at both ends. All communications between both ends take place over the Internet. Efficient compression allows the transmission of uninterrupted full-screen, full-motion video unless excessive Internet traffic makes the data rate drop too low. It also allows you to use a Wi-Fi-connected laptop on the receiving end.

The TV2me signal can't be distributed to other Internet users because it's encrypted and point-to-point, not point-to-multipoint. In legal terms, it's the equivalent of time-shifting, but Schaffer calls it space-shifting and considers it similar to sending a signal to your bedroom — except your bedroom can be anywhere in the world.

TV2me isn't a commercial product that's being mass produced — yet. Sales have been limited to a few systems Schaffer has sold to friends and acquaintances for \$6,500 each. He says that legal questions prevent him from saying who has bought them, but judging from the pictures on his wall, his friends are rock & rollers and movie stars like Sting, Rod Stewart, Dennis Hopper, and Mick.

— Ken Sander