## Sounding 'Net warning

## Stories of ISP shortcomings point up problems still facing the Web / Simson L. Garfinkel

T'S BEEN A TOUGH month for customers of Cyber Access Internet Communications, an Internet service provider with roughly 1.500 customers in the Boston area. Since May 9, Cybercom's customers have complained about haltingly slow Internet connections, delayed electronic mail, and telephone calls that never get returned. One user who complained in public said his account was deleted. The Cybercom saga is an important warning: The Internet that we are building to support the 21st-century economy is too fragile, and the people running it have too much power.

Here is what happened. Most Internet service providers, including Cybercom, are really nothing more than electronic resellers. An ISP buys a big connection to the Internet from another company, then breaks it into smaller pieces and sells those slices at retail.

Frequently, that big connection is something called a T1.
Under normal circumstances, anywhere from 100 and 150
customers can call into an ISP at any given moment and share the T1 without many problems. And that translates to anywhere from 500 to 1,500 paying customers.

On May 9, Cybercom lost its T1 to MCI, which effectively cut Cybercom and its customers off from the rest of the Internet. Customers calling into Cybercom's system could still view the company's Web site and exchange mail with other Cybercom customers, but they had become an island unto themselves.

Cybercom left a message on its answering machine saying that the system would be up by May 13. Service was finally restored May 14 but it was a slow, painful service. E-mail was taking hours to get delivered. Netscape was all but unusable.

What happened was that Cybercom had switched its upstream Internet provider, moving from MCI to Harvard Net, a smaller regional that specializes in providing high-speed connections to ISPs and other companies. Because it takes three to four weeks to get a T1 installed, Cybercom had set up a temporary connection using an ISDN telephone line.

Running at 128 kilobits per second, the ISDN line was only one-12th the speed of the lost T1. According to Harvard Net, the new T1 should be operational in a week or two.

Many of Cybercom's customers have been left in the dark.
"The biggest frustration is that when you leave messages for Cybercom: They don't answer," says Karen Cord Taylor, a Cybercom user.

Another Cybercom customer, Ron Newman, posted a message on the Internet's ne.internet. services news group during the outage asking if anybody knew what had happened. Newman said that since Cybercom was refusing to answer its phone, displeased customers should visit the company's office at 2000 Massachusetts Ave. in Cambridge and make their concerns known. A few days later, Newman discovered his account had been deleted and all of his files stored on Cybercom's Web server were erased.

Newman got himself an account at Complete Internet
Access, another Internet service
provider. He then wrote a letter to
Cybercom demanding that they
return his files and that they set
up a kind of "call forwarding" service, so people trying to send him
e-mail or visw his Web pages
would automatically be sent to his
new account. When they didn't
comply with his demands, Newman hired a lawyer and filed suit.

And that, many people say, is the way the nation's entire telecommunications infrastructure should be working today. There should be a free market with multiple providers, each selling different services with different levels of quality at different prices. People will vote with their feet and with their checkbooks. And instead of having the industry regulated by the Federal Communications Commission or the state Public Utility Commission, the Internet should be run by industry practices, voluntary standards. and contracts. If Newman didn't want to do business with an Internet provider that could terminate his account for any reason at a moment's notice, he should have negotiated a better agreement.

I think it is dangerous to apply laissez-faire economics to critical telecommunications infrastructures. Increasingly, people and businesses depend on Internet service for their livelihood: ISPs need to understand that responsibility and plan accordingly.

This isn't just a problem for the Cybercoms of the world. Both America Online and Netcom have had systemwide outages lasting a full day. On Tuesday, I was unable to use my Sprint Internet Passport account. I called Sprint and

learned the entire system was down because of a software upgrade. Try again later, they said.

"There needs to be legal protection for customers of ISPs, just as there now is for customers of utilities and tenants of landlords," concludes Newman. "It has taken more than 50 hours of my time to deal with all of the problems that have been caused by this. The biggest problem has been telling people that my e-mail address has been changed and that my Web address has been moved."

Newman's Web pages are well known: They contain information about the Church of Scientology as well as a technical standard for Internet software.

"There are probably a thousand hyperlinks out in the world to my pages, and they have all become out-of-date," he says.

You can learn more about Ron Newman's problems at http:// www2.thecia.net/users/rnewman/ cybercom/.

I admit I am not an entirely neutral observer. When I moved to Martha's Vineyard two years ago, I wanted my own T1. To help pay for it, I set up a computer with a few modems. Before I knew it, I had my own ISP, with hundreds of customers. So I know that things must be very hectic over at Cybercom. I am very glad that I am not in its shoes.

I called up Cybercom to get its side of the story. I left numerous messages, but finally got somebody on the phone. "We really don't want to comment on the situation," the person said. "I'll notify the appropriate person and if they want to talk to you they will give you a call."

No one has called.

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