Those Horrible Hackers Strike Again

In mid-November, something happened. We all know what it was, even the general populace knows this time. A *Newsweek* reporter, Richard Sandza, was harassed with a flurry of hacking and phreaking after he wrote a semi-revealing article. (See November 12 *Newsweek* for the article and December 10 for the follow-up.)

The attack on Sandza is unique because he is a member of the press. Because of this, a ridiculous amount of publicity erupted from the event. *USA Today* ran several days worth of articles and editorials focusing on the rampant abuse of technology by our kids, as did TV networks and all other branches of the media. Most of them mentioned breakins at the computers of Sloan Kettering, NASA, TRW, or other well known organizations. This is supposed to make us gasp in astonishment and lead us to believe that the only problem is these pesky, genius kids. But we all know better.

Sandza made the one big mistake of underestimating the power of the hackers. We were told by one of his friends of how he was so very certain that nothing could happen to him because he published a secret password. We believe this has been an educational experience for him. Some of the hackers among us could use a bit of this education themselves, though. Harrassing one person relentlessly really accomplishes nothing except to further tarnish the image of hackers. By comparison, if the hackers had done all kinds of nasty things to a big corporation, say Union Carbide since they seem to have been doing some nasty things themselves recently, the general populace might have been more understanding.

Although Sandza's case and the publicity surrounding it will hopefully alert the public to potential abuse of information by others, it is something neither he nor others deserved. And consider this: Although Sandza broke confidences by revealing passwords, he had just as much right to do it as those hackers that reveal commercial computer passwords.

wiretapping and divestiture:
A LINEMAN SPEAKS OUT

by The Shadow

Never missing an opportunity for social engineering, the Kid & Co. and I naturally carried on a conversation with the New Jersey Bell fone installer when he came to put in my modem line. The conversation turned to fone tapping, and several interesting details came to light. He swore up and down that Bell had nothing to do with wire tapping. He said the supervisor receives sealed orders from the sheriff's office, merely passing them on to the linemen. Then the lineman follow the orders to go up on the poles and mark the pair in the "CAN" that fit the fone line in question, and then leave the site.

One day, our lineman drove back by the pole he had marked earlier in the day, and saw a Bell truck. Wondering who it was, he stopped to ask. The guy up on the pole told him to go away and to leave him alone. Since our friendly lineman didn't recognize the mystery man as one of the linemen for the area, he asked his supervisor who it could have been. His supervisor curtly told him to forget the entire incident.

The lineman told us that in the old days the Telco and the prosecutor's office worked hand-in-hand. They would let the authorities right into the CO to listen in on conversations. But this ended around 1975 when someone sued Jersey Bell because of this too close interaction. The Telco then realized that they didn't have to go that far in order to help the police. After this they gradually broke from the close relationship. Now the fone company merely marks the lines, and the prosecutor's office handles the rest. He also said that now the police sometimes use ultrasonic waves bounced off of window panes to listen to suspects, removing all contact with the fone lines. Since the presence of a fone company truck messing with telephone wires is taken for granted by the general populace, the sheriff's office also has a couple of them for undercover work. Since they got them back in the good old days of Bell friendliness, the trucks tend to be the older models, with outdated gear. The trucks also tend to be a giveaway of the normal fone installation gear. The lineman told us a sure way to identify the local police's trucks: they have wooden ladders. New Jersey Bell switched over to plastic ones years ago.

Continuing the discussion with the lineman, we covered the breakup. New Jersey Bell now no longer gives as much overtime as it once did. The lineman complained that his standard of living had gone down since the breakup as he no longer has as much take home pay. The breakup has caused a total severing of ties with AT&T. He professed total ignorance about long distance calling. He had originally gone with AT&T, but disliked fixing PBX's and computer systems. As soon as he could, he switched back to the local operating company.

He told us about a technical institute Western Electric was operating somewhere in the Midwest. He had gone there to learn about the various types of switching systems. On campus was a gigantic, multi-story building split up into rooms approximately the size of gymnasiums. In each was a fully operational scale model of each of the various switching systems. Western Electric manufactures, including all the ESS and crossbar machines, as well as some step-by-steps and several types of PBX's. They trouble-shot and repaired problems in these machines in order to learn about actual operating equipment.

We talked about the local switching equipment, which turned out to be a #1A ESS. According to him, soon all the local CO's will be run automatically from central locations called "hubs". The "hub" handles any overload between central offices that might cause the dreaded "gridlock" of the fone system. If the interoffice signaling lines get overloaded, the calls are rerouted through the hub. The hub also serves as a central spot where troubles at the local CO are handled in the first stages of trouble-shooting. The "hub" concept is alive and well in our local area, with a #5 ESS, the third installed in the entire nation, running the whole operation.

When he was getting ready to leave he thanked us for the interesting conversation, and we waved at him as he pulled out. I now not only had a new fone line, but also a lot of useful and interesting info, as well as the satisfaction of a friendly chat.

The lesson is clear. Whenever a Bell employee visits your house, feel free to ask whatever you want, within reason. Most are extremely willing to shoot the bull about almost anything of which they have knowledge. At first, merely joke with them lightheartedly, in order to get them off of their guard. Legit questions askable by a normal customer, such as equal access cutovers, will get them rolling, leaving you to direct the conversation wherever you like. Asking about the breakup and how it affected them is a sure fire way to get them talking. Questions like "How does the fone network work?" also are good, especially if you guide them into the discussion of switching technology. Most Bell employees are really glad to talk to someone. Most people are flattered when others seem interested in them. Remember, they usually interact with disgruntled customers with complaints. Their spouses probably yell at them, and their supervisors either complain about their performance or ignore them. Society at large just doesn't care about them. They're most probably disenchanted with the world at large, and maybe even dissatisfied with their jobs. The chance to talk to someone who merely wants to listen to what they say is a welcome change. They will talk on and on about almost anything, from telecommunications to their home life and their childhood. The possibilities for social engineering are endless. Remember, Bell employees are humans, too. All you have to do is listen.

Getting In The Back Door
A GUIDE TO SOME POPULAR OPERATING SYSTEMS

by Mike Salerno

There are four popular operating systems on DEC machines that are supported by DEC. Two of these, TOPS-10 and TOPS-20, run on the KL10 and the KS10 36 bit machines; TOPS-10 also runs on the older KA10 and KI10. The other two are UNIX and VMS for the VAX, and PDP-11 series. The VAX is a 32 bit machine, with a 32 bit virtual address space. The PDP-11 is also a 32 bit machine. VMS is a very intricate operating system, with its loopholes, as you will see.

TOPS-10 is an operating system that uses two octal numbers to identify a "user" or "account". This is usually printed in the form of [565,11]. The first number tells which "project" the user belongs to, and the second is which "programmer" the user is. Passwords are any printing character up to 6 characters long, containing only upper case alphabetics. Also associated with the project programmer number (PPN) is the username, or "user ID". This is usually either a department name, or a personal name. Now, we all know what some people like doing, i.e. using parts of their name or department as their password (usually initials, or first names). The only problem that remains is how to get these usernames, right? Wrong! TOPS-10 is one of the few operating systems, besides TOPS-20, that lets you do a few things while not logged in. This includes running a program called SYSTAT that will give you various performance statistics, along with a list of users on the system. If this system is running version 7 of TOPS-10, you can use SYSTAT to give you what you want. Just type "SYSTAT US". This will give a short listing, giving only users on the system and their usernames. Useful, isn't it? If the version is previous to version 7, you can get a SYSTAT and then, using the job number in the left column, type "PJOB n" where "n" is the user's job number. This will give you his username. If this is too tedious, type "QUEUE". This will show you a list of users who have entered print and batch requests, along with their username. To login, just type "LOGIN", a space, and the "PPN" with a comma. Really taking over is not easy, unless you've worked with TOPS-10 for a while. There are a few accounts that might have been left with the default passwords set, like [1,3] password OLD or OLDLIB, [1,4] password SYS or SYSLIB, [1,5] password NEW or NEWLIB, [6,6] password MAINT or FIXIT or FIX-IT, and [7,7] password OPER or OPR.

Like TOPS-10, TOPS-20 allows you to do certain things which are helpful to hackers. Accounts on TOPS-20 are up to 39 alphanumeric characters including hyphens and/or periods passwords are the same. To login, type "LOGIN", a space, the username, a space, and the password. The password will not echo. SYSTAT can be run whether you're logged in or not on most machines. If the host is on ARPANet, use FINGER to give a list of users on the system, along with their personal names! There are not many privileged accounts that will have their password set to something obvious, but one may be MAINT or F-S or FIELD, with a password FIXIT, FIX-IT, or MAINT. If the host is on ARPANet and you can login, try FTP, which stands for File Transfer Protocol. With this, you can transfer files from another host on ARPANet to the one you're on, or vice versa. You have to have an account and password to use on the other system, but guess what? TOPS-20 systems all have an ANONYMOUS account that any person

using FTP can log into, with any password!

UNIX is a pretty simple operating system, but has some pretty good security measures. The only way you can get full file access, or any other privilege is by issuing the SU command and entering the appropriate password, which (I believe) is the "root" account's password. Accounts and passwords are stored in text form, in the directory "/etc" in the file "passwd". All the passwords are coded in such a way that there is no way to decode them. The program responsible for checking these passwords codes the password you give, then checks it against the already coded password stored in the file. The only time the real password is handled by the computer is when the user himself sets it. All the fields in the password file are separated by a colon. The first field is the username, the second the password. If there is no password—two colons after the username—then that account can be logged into without a password. Some of these may be "help" or "learn" which actually may let you into the system's command level. The account "sync" is used to synchronize things so that UNIX can be crashed (never crash a UNIX system, it may leave the disks in an undesirable state). One useful account which is usually left with no password is "who", which will give you a list of users on the system, just like typing "who" at the command level would. You can scan through these and see if you can find an account with no password, or part of the username as the password. If this doesn't work, then hang it up. One thing about UNIX—it thinks upper and lower case are different. This allows for file names and even passwords in upper and lower case!

VMS stands for Virtual Memory System. The VAX's 32 bit (4 gigabytes!) virtual address space is exploited fully by VMS. The introduction of the new VAX 8600 with the speed of four VAX 780's is an impressive move by DEC. This system should be able to support up to 256 users. One "good" thing (depending on your point of view) about VMS is that it lets you do *nothing* without first logging in. If the system has only been in operation for about 6 months or so, there is a good chance that the default accounts supplied with VMS are still there. These include the system manager's account SYSTEM with the password MANAGER, the field service account FIELD with password SERVICE, and the system program test account SYSTEST with password UETP. All these accounts either have full privileges or have the privileges to give themselves full privileges. If you can't access some files from FIELD or SYSTEST, this is because you're the latter. To give them to yourself, just type "SET PROCESS/PRIV=ALL". Once you have full privileges, you can run the system program AUTHORIZE. This program will allow you to print usernames, owners, etc., and insert new users. You can *not* print passwords, since the login program works like UNIX's does. If the VAX is hooked into DECNET, which is DEC's supported network, you can access any unprotected file on any "node" on the network.

One thing about DEC's machines is that they can all communicate with one another. Using ETHERNET, you can connect to, send mail to, and transfer files to and from almost any other DEC system. There should be on-line help for the network, just type HELP.
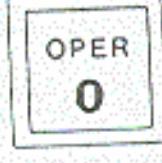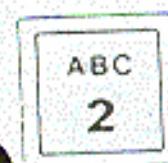
IRS Wants Access to Telco Data

Jack Anderson

Paying for an unlisted telephone number may keep pests from interrupting your dinner, but it won't keep the revenuers off your back if the Internal Revenue Service has its way. The IRS is considering a proposal to plug directly into the phone company's computers to track down delinquent taxpayers.

The tax collectors will soon begin negotiating a pilot phase of the plan with Bell Atlantic, which covers all or parts of Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and Washington, DC. The scheme will allow the IRS to get information directly about the phone numbers of taxpayers who do business with Bell Atlantic.

And not only listed numbers would be turned over to the IRS, but closely guarded unlisted numbers as well. Eventually, the IRS hopes to have direct access to the telephone company's computer banks, as well.

Critics point out that as things stand now, businesses and individuals who are asked for confidential information have the right to challenge such a demand, and make the IRS prove its case in court. Under the computer plug-in plan, the telephone company would already have given IRS access to its records—without consulting anyone. Such a plan could end up reversing the burden of proof in tax cases, forcing the taxpayer to prove that information gathered from a variety of sources was inaccurate.

Meanwhile, IRS is reportedly laying plans to supply computer data on taxpayers to other government agencies.

GEISCO's New Toys

3600 News Service: H. Alexander

Information differs from other commodities in that many people can possess it at the same time. If one person uses some, it is not diminished. And it's difficult to prevent people from obtaining information without paying for it. These thoughts were offered at a press conference on December 6, held by General Electric Information Services Co. (GEISCO) in Rockville, MD. At the same time, the company announced a point-to-multipoint partnership with Bonneville Telecommunications of Salt Lake City, Utah. The resulting service will enable companies to communicate with subscribers, dealers, or clients at a lower cost than is now available via telephone, teletext, or mail. The data goes out from an office to Bonneville over a telephone line. Bonneville collects data to be distributed and transmits it via satellite to FM radio stations around the country, which broadcast the data to individual personal computers or printing terminals located within the broadcast area of each radio station. The FM station rebroadcasts the signal at 19.2 bits per second to a local office or client on the subcarrier portion of the FM band. An error rate of 10 to the minus 6 power is claimed by Bonneville.

Platt Global Alert, a service for people who buy tanker loads of oil, goes out over Bonneville's network. The customer transmits data to the Bonneville Uplink host via a standard modem connection to the terrestrial-based portion of the GE service called Mark*Net, a value added data service.

GEISCO also announced a deal with Gannett Co. Inc. which will allow USA Today Update, a new electronic newsline, to be distributed on the GEISCO worldwide teleprocessing network. The GEISCO network has local telephone access in over 750 cities in 25 countries at 300 or 1200 baud.

GE has a knack for putting together successful partnerships. The company gave Ronald Reagan a new start in 1954 when no one in Hollywood would hire him to act. He was GE's travelling salesman on the virtues of free enterprise for several years.

GTE Hit by Divestiture

Associated Press

The GTE Corporation has accepted a judge's consent decree that requires the company to keep its long distance and local telephone networks separate in return for the acquisition of what are now called GTE Sprint and GTE Spacenet.

Judge Harold H. Greene of the United States District Court in Washington then signed the decree, making it effective immediately. GTE announced its intention to acquire the Southern Pacific Communications Company and the Southern Pacific Satellite Company—now GTE Sprint and GTE Spacenet, respectively—in October 1982. In order to complete the acquisition, the company agreed with the Department of Justice in May 1983 to the entry of a consent decree.

The decree also requires GTE to provide equal access to other long distance carriers in its local exchanges.

Fascist Computer Network

Denver Post

The leader of a white supremacist group whose former member is a suspect in the slaying of a Jewish talk-show host says neo-Nazi groups throughout the United States and Canada are linked by a network of home computers.

Aryan Nations leader Richard Butler of Hayden Lake, Idaho, also said members of his group can call up a computerized list containing the names of Jews, alleged communists, and "race traitors."

Network

The Ku Klux Klan has set up an electronic bulletin board that enables computer operators to hook into the latest in neo-Nazi thought for a $5 fee.

The "Aryan Nation Liberty Net" offers information like the locations of communist party offices and ZOG (Zionist Occupational Government) informers.

"It's a tremendous tool in the awakening of the white Christian people to the Jewish plot to destroy the white race and Christianity," said Glenn Miller, leader of the North Carolina Klan, which operates one of several such bulletin boards.

A Challenge to Hackers

The Anchorage Daily News

Most businesses fear computer hackers. An Albany, NY company challenges them.

Elite Software Systems Inc. makes a software program called Encomp that encrypts information stored on computer disks. The $99.95 program makes the disk unreadable without the right password, and Elite is offering $10,000 to anyone who can break its system using a personal computer.

The company has sent out 6,000 entry forms but has received only three replies—all wrong, says Philip Cohen, vice president of sales and marketing. A systems analyst, he says, "called up to bust my chops" and outlined a way to crack the code using a million-dollar mainframe computer. That doesn't count, Cohen says; only personal computer users need apply.

[We believe a number of our readers are worthy of this challenge. Go ahead. Make us proud of you. Elite Software Systems can be reached at 5184824162. Keep us posted.]

In Addition...

Combined News Sources

• Although it had said it would try to avoid layoffs as part of a planned reduction of 11,000 jobs announced in August, AT&T is furloughing at least 400 workers and more layoffs are expected. The job cuts are part of the company's efforts to trim costs and stay competitive after the government-mandated breakup of the Bell System.

• The Democratic National Committee has moved to its new headquarters on Capitol Hill. The Republican National Committee also has headquarters near the Capitol. There may be some confusion since the new D.N.C. telephone number is 2028638000. The R.N.C. number is 2028638500.

• New York Telephone has announced that, under new rate proposals, the discount for personal telephone service currently available to members of the clergy would be discontinued.

LETTERS TO US

Dear 2600:

I think the question you referred to me last September from the Crystal Palace operator is one of the most widely asked questions these days in light of the LA case involving an operator, Mr. Tcimpidis. The answer is hard. The first amendment protects most communications short of promoting the violation of laws by specific actions. Its application to bulletin boards is complicated by the uncertain nature of computer communication. Newspapers are more protected than radio stations because the traditional theory says that the government can regulate the airwaves since they are a limited resource and regulation is merely a side-effect of allocating the resource among competitive users. Will bulletin boards be treated like radio stations or newspapers? Only time will tell.

Let's try a different approach. Criminal law generally requires "mens rea" or guilty knowledge before someone can be convicted of a crime. The proprietor of a pornographic bookstore cannot be convicted of possessing obscene books just because they are in the store. There must be proof that he or she knew the books were obscene. Likewise (?) an operator cannot be prosecuted for information on his/her board unless there is proof of knowledge of the contents of the message in question. More than knowledge is required. There usually must be intent to commit a crime. If a Metro code is on your bulletin board, and you do not know whether it is valid or not, it seems difficult to prove that you have the intent to commit a crime, or to aid and abet someone else to commit a crime. Lest the reader take this as a guarantee that there will be no prosecution, it is important to add that most of the elements of most crimes can be established by circumstantial evidence. This means, in short, that if a jury believes a prosecutor's argument that the smoke he/she demonstrated is sufficient to establish that the defendant causes the fire. If the contents of a bulletin board are clearly the efforts of people to steal money, computer time, telecommunication services, etc., it can be argued that the operator must have seen the messages, knew their intent, and willfully aided and abetted the perpetrators of at least criminal attempts, if not crimes.

If the last two paragraphs seem to contradict each other, the majesty of the law in its paradoxical confusion has been made manifest. As every lawyer always says in conclusion, the information herein offered is general, and worth about what the reader has paid for it. Specific questions are best discussed with a defense attorney. More general information will appear in the first issue of *Conscience in Computing*, which will contain a case study of the Tcimpidis case.

> Jay BloomBecker, Esq.
> Director, National Center for Computer Crime Data
> Los Angeles

Dear 2600:

My favorite BBS is The Temple of RA at 9072486298. The sysop is Mad Jap and there are a number of boards, including paranormal, main board, phreakers, game board, and SLIME board. It runs an alterated GBBS and it has a lot of quality users plus a great sysop. These people discuss a lot of interesting things.

> The GCI Guy
> Alaska

Dear Twenty Six Hundred En: [sic]

Is it something we did or didn't do that might be the reason you haven't used Easylink lately? If so, please let me know.

Just contact me at (516) 938-5600 (or drop a note in my Easylink mailbox 62661080) and I will be more than happy to answer any questions that you may have.

> Sincerely,
> John Sengelaub
> Western Union

Dear John:

Please leave us the hell alone. You people are fools.

Dear 2600:

In response to your article on fortress fones, I would like to add a piece of info. I have noticed a Bell repair lady opening up a fortress fone to take the change and bring it back to Ma. When she opened it, she took one key and stuck it on the right lower side of the fone and turned it twice clockwise, then inserted another key at the front, turned that counter-clockwise and pulled out, and voila! She got the box with change. I hope this can help you out.

Also, at one time, I dialed 09591212 and I got a ringing. Where is that going?!

> Sector 17

Dear Sector:

If it's *never* answered at any hour of the day or night, then odds are it's some kind of a test number.

Dear 2600:

Have you ever wanted to know what city a phone number is located in? It's easy! All you need to know is the area code, the desired prefix, and how to push '0' on your touchtone® telephone. (You do have touchtone®, don't you?)

Suppose that we find 2139753617 written down in our notes but don't know where it's located. Put on your telco voice, turn down the Pink Floyd, and call your friendly local teaspoon (TSPS) operator. When (s)he answers, say, "Name-place please, 213975." The op will 3-way to a Rate & Routing op in area code 213, who will cheerfully tell you the location in question. In this case, the telco clones will tell you "Los Angeles, California", which you probably suspected all along. They will even call you "sir"! Just think—you have tied up two telco clones and a landline to Smoggy Southern California. Isn't this phun?!

Another thing: some pholks think that loops exist only in the United States of Anemia. Au contraire, Pierre! Here are some loops in the Great White North, Montreal to be specific. The area code is 514 and the pattern is NXX-1194/1195. Some prefixes known to be working are 324, 374, 656, 678, 731, 733, 738, 739, and 933. 374-1194/1195 is rumoured to be a phreak hangout.

A caveat, however: often you will get someone who speaks French. If you don't speak French, then... call another loop. Keep in mind that these loops are long distance (unless you happen to live in Montreal), so don't run up your phone bill calling them. Don't run up someone else's phone bill, either (although everyone knows that moral, upstanding 2600 readers never break the law). These loops are often busy, so keep trying.

> Bob Gamma

Dear 2600:

Are any of your readers familiar with the International Day of the Phreak? It's an annual event that's been going on for about three years now, with growing support each time. On the first Saturday after tax day (this year that would be Saturday, April 20), phone phreaks all over the world "get together" and do funny things to phone companies all over the world! Two years ago some pholks knocked out a Sprint satellite link by repeatedly calling the same access number with the same code from many different cities at once. It was great phun!

Perhaps your readers can suggest ideas for this year's "holiday". Also, does anyone know of a similar day for computer hackers? I think it takes place in the fall. (Phreaks can outdo hackers any day, by the way!)

> Father

Dear Father:

This is truly horrible. Do keep us informed, though.

Dear 2600:

I've been staying awake nights lately wondering why whenever someone gives out a nationwide toll-free number (in an advertisement or a radio show) they always give out two—one for callers outside their state, and one for callers within. Why can't the phone company give them one number for both? It might be cheaper the first way, considering that in-state calls are often discounted separately from cross-state calls, but even rich folks like IBM have a separate 800 number for the in-state calls. You'd think that they would rather pay more for one number and confuse their public less. Or would they?

> Insomniac

Dear Insom:

It has to do with tariffs. In some states, things get so ridiculous that the United Parcel Service has to ship packages to another state in order for them to be delivered within the same state! Similar antics are the rule with phones, especially now after the breakup. Generally, if an 800 exchange ends in a 2, i.e. 522, 932, it's likely the exchange only works within the state and not nationally. In other words, it's been the telcos that have been setting the rules of two numbers for the same thing. That's been changing, though. ESS allows practically any number to be used as an 800 number regardless of exchange. This allows for lots of letter-numbers (800DIALITT, 800TELECUE, etc.) and also allows the same numbers to be used all over the country. So it should start looking less confusing. Now get some sleep.

As we start our second year of publishing, we can't help but notice the tremendous amount of reader response and article submissions we're getting. Our 1985 issues will reflect this and wind up being more interesting, informative, and diverse. You, too, can be a part of this. you think you have anything at all to lend to this publication, write or call (our front page tells you how).

New York Telephone

516 751 2600 783 270-R7S0   DEC 19, 1984   ATTCOM PAGE   1

AT&T
Communications   AT&T COMMUNICATIONS DETAILS OF CURRENT CHARGES

                                    - SEE PAGE 2   21.84
ITEMIZED CALLS   2.18
TAX: FEDERAL 3%   .66   S/L 7.25%   1.52   24.02
                        AT&T COMMUNICATIONS CURRENT CHARGES

BILLING INQUIRIES CALL AT&T COMMUNICATIONS 1-800 222-0300
   THIS PORTION OF YOUR BILL IS PROVIDED AS A SERVICE TO AT&T COMMUNICATIONS.
THERE IS NO CONNECTION BETWEEN NEW YORK TELEPHONE AND AT&T COMMUNICATIONS. YOU
MAY CHOOSE ANOTHER COMPANY FOR YOUR LONG DISTANCE TELEPHONE CALLS WHILE STILL
RECEIVING YOUR LOCAL TELEPHONE SERVICE FROM NEW YORK TELEPHONE.

Exhibit A:
The Lie.

日本へ
電話をおかけですか?

皆様のお部屋から
かけられます.

Exhibit B:
**We don't know what this
means, but it's probably
a lie too.**

AT&T

Illinois Bell   **Local Calls** 25¢   1.   2.
                  Llamadas Locales

SOS - Emergency dial [0]
No Coin needed for charge, SOS and free calls.
This telephone may be used to reach all long distance companies.   Obtain dialing instructions from your compan

SOS-Emergencias marque [0]
No se necesitan monedas para llamadas con cargo, SOS o gratis. Este teléfono da acceso a todas las compañí
de servicio de larga distancia. Obtenga de su compañia de servicio de larga distancia las instrucciones para marc
                                                                                          84 UPP

WE'D LIKE TO THANK EVERYONE
WHO'S BEEN SENDING US THESE
PAY PHONE CARDS FROM ALL
OVER THE COUNTRY. WE HAVE
QUITE A COLLECTION NOW. WE
DON'T EVEN KNOW HOW THIS
GOT STARTED, SINCE WE NEVER
ASKED FOR THEM. MAKE SURE
YOU GET OPERATOR PERMISSION
BEFORE YOU TAKE ONE OF THESE
OFF A WORKING PHONE—IN
SOME CASES THEY'LL EVEN TELL
YOU THE BEST WAY TO DO IT.

SOME GOOD BOARDS:
*Private Sector* *2013664431*
OSUNY *9144287216*

Do you recognize Zippy down at the bottom of the
page? Well, because of him and his new postal rates
(along with our increased printing costs), the price of
2600 is finally going to have to go up! Effective March
1, our annual rates will be $12 for 12 issues. Back
issues will remain $1 apiece.

SOURCE DOCUMENT CLOSE
TO SCREEN HEIGHT AND IN
COMFORTABLE LINE OF SIGHT
LINE OF
SIGHT
STRAIGHT NECK
AND UPPER BACK
SCREEN AT EASY VIEWING
HEIGHT AND ADJUSTABLE
LOWER BACK
WELL SUPPORTED,
CHAIR HEIGHT
ADJUSTABLE
DETACHABLE KEYBOARD
AT CORRECT HEIGHT
TABLE AT TYPING HEIGHT
AND ADJUSTABLE

Exhibit C:
The Happy Hacker

BITnet Topology - Summer 1984
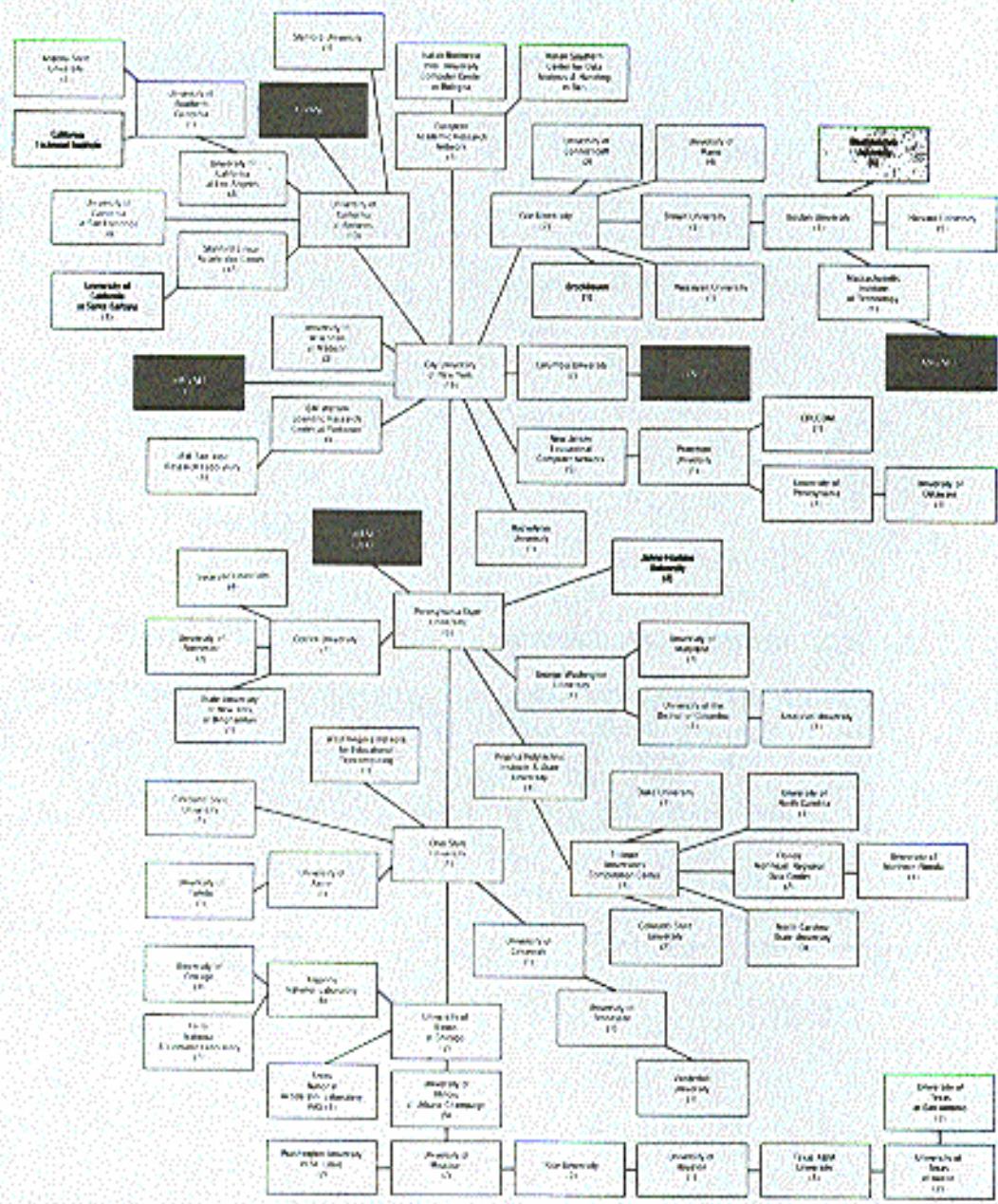
KEY

Number of connected computers, where known, is shown in parentheses.

(Reprinted from Harvard University's *Information Technology Newsletter*, September-October 1984, page 5.)

(Re-reprinted from *Cursor*, October 1984, page 12. Write to: Computation Center, Carnegie Mellon University, Pittsburgh, PA 15213.)