

2600

The Monthly Journal of the American Hacker



Volume 4, Number 10

October, 1987

\$2



DO YOU HAVE BACK ISSUES OF 2600? If not, look what you're missing!

1984

AWHOY! an introduction to 2600. FBI GOES AFTER ADS HACKERS FBI investigator unwittingly reveals tactics and recent activities. FLASH LICA discusses GTE raids. AT&T credit cards, wireless phone trouble. THE TRUTH BEHIND THOSE 9999 NUMBERS a toll free error story. DATA various White House extensions. HACKING ON TELENET how to use Telnet? use. ESS ORWELL S PROPHECY the first in a series on the fun and dangers of ESS. FLASH directory assistance changes, computer air ban. AT&T credit cards, etc. SOME THOUGHTS ON GARBAGE PICKING first of a series of trashing for valuable information as a hacker. a discussion of crossstalk. DATA COUNTRY CODES every last country code for overseas dialing. THE CONSTITUTION OF A HACKER a discussion of hacking. ALTERNATE LONG DISTANCE MCI history, systems, and services. FLASH 718. Connecticut wiretaps. Sweden person numbers, etc. THE FIRST ATOMIC BOMB an inside story on the event as related to our nation's phone system. DATA ARPANET HOSTS list of accessible hosts. WHOSE STRIKE WAS THAT ANYWAY? a startling analysis of summer 83 phone strike. THE TROUBLE WITH TELEMAT list of accessible hosts. WHOSE responsibility in protecting their system. FLASH AT&T credit cards, portable prisons. 414's plead, etc. A TRUE SAGA OF TELECONFERENCING what can happen on a teleconference. DATA MCI ACCESS NUMBERS dialups FOR MCI MAIL, PHONE BOOK COLLAGE #1 our artistic heritage in phone book designs. THE SIMPLE PLEASURES OF A STEP OFFICE discussion of ins and outs of antiquated phone systems. IBM S AUDIO DISTRIBUTION SYSTEM using voice messaging technology. FLASH 414 sentencing, equal access, bank record privacy, etc. THE WOES OF HAVING A SMALL TIME RURAL PHONE COMPANY a true story. DATA AVAILABLE NETWORKS ON THE DEFENSE DATA NETWORK a list including base addresses. EASYLINK ACCESS NUMBERS, ARPANET HOPPING AMERICA S NEWEST PASTIME how it works and tips for its use. ELECTRONIC SWITCHING ADVANCES some of the possible services and drawbacks. FLASH Directory assistance charges, 2600 writer indicted, demise of E. COM, etc. THE DARK AND TRAGIC SIDE OF THE GREAT BREAK UP a frank discussion. LETTERS Sysop problems, 518-789 an XY step, etc. DATA E. COM ACCESS NUMBERS dial ups for the (now defunct) service. NY TELEPHONE LETTER OF DOOM a copy of a law enforcement monitoring notice. LOOKOUT, HE S GOT A COMPUTER! a defense of the hacker viewpoint. MCI MAIL THE ADVENTURE CONTINUES an analysis of the well known faulty E-mail system. FLASH computerized meter maid, blue box arrests, anti hack legislation. INTRODUCING THE CLEAR BOX! post pay payphone device. LETTERS new switching equipment. 99 scanning, repulsive operator story, etc. SPECIAL REPORT TRW BIG BUSINESS IS WATCHING YOU how to use TRW and an assessment of the potential of this system. BUT HOW DOES IT WORK? a simple explanation of the phone system, wiring, voltages, black boxes, ring, etc. PRIVACY LOST a review of David Burnham's book 'The Rise of the Computer State'. BE NICE TO YOUR TELCO how individuals are abusing their telcos. FLASH Big Brother in Miami, NASA computer break-in, computer export controls, 800 directories. LETTERS phone scramblers, page numbers, hacker's book, etc. DATA CNA NUMBERS list of CNA's. A HACKER S GUIDE TO AN AREA CODE a simple scheme to help map out exchanges in your area. HISTORY OF BRITISH PHEAKING an account of the history and techniques. MORE ON TRASHING what to look for where to go how to act. AFFRIND IN HIGH PLACES story of a friendly operator. FLASH NSA insecurity hacker caught, private directories. LETTERS phone loop, WATS, TAP, etc. DATA A NON COPYRIGHTED DIRECTORY. NY TELEPHONE BIG BROTHER LETTERS touch tone without permission, etc. GETTING CAUGHT HACKER S VIEW a story of the personal effects of hacking. VITAL INGREDIENTS what makes the phones work operators. Switching. FLASH NSA wants better phones crime computer victim, wiretap loopholes, 911 attacker caught. LETTERS BBS discussion. Comsec. Letter. Computer Crime Data offers. DATA NY TELEPHONE SECURITY NUMBERS. MCI ANECDOTE ads, vulgarisms, MCI chairman profile. PHONE BOOK COLLAGE #2 EXPLORING CAVES IN TELENET an interesting extender explained. FUN WITH FORTRESS FONES what a payphone does, how people beat them. FLASH SS computer foul ups. Airfone wiretaps, 818, pay phone attack. LETTERS book list silver boxing another hacker's view. DATA IC S AND CARRIER IDENTIFICATION CODES guide to 950 exchange. MCI MAIL TROUBLE LETTER the harassment begins. A TIME FOR REFLECTION the year in review. MCI MAIL AND EASYLINK electronic mail horror stories. THE SCARIEST NUMBER IN THE WORLD true story. FLASH campaign computer. Pentagon by phone, students bog computer, electronic jail, federal phone upgrade. SURVEY reader survey responses, SOME, BUT NOT ALL ELECTRONIC MAIL SYSTEMS list and price comparisons plus voice messaging companies. REACH OUT AND GOOSE SOMEONE list of many unique dial-in numbers.

1985

THOSE HORRIBLE HACKERS STRIKE AGAIN analysis of Newsweek incident. WIRE TAPPING AND DIVESTITURE a lineman discusses these topics. GETTING IN THE BACK DOOR a guide to some popular operating systems including TOPS 10, TOPS 20, and UNIX. 2600 INFORMATION BUREAU our phone bill our thanks and other notices. FLASH IHS and telco data GEISCO KKK computer. LETTERS BBS rights, Easylink, Canada loops, international phreak day. BITNET TOPOLOGY a schematic of the BITNET. THE THEORY OF BLUE BOXING history, future and how they are used. TRASHING ALASKA STYLE a real trashing adventure story. SURVEYING THE COSMOS a beginner's guide to COSMOS. B-11 S computer program. FLASH phreak roundups, real TRW crime. 2600 BBS, 800 data. LETTERS Bell problems, telco discount, marine calling, many questions. 2600 INFORMATION BUREAU acronym list of useful telephone jargon. NAZIBBS A CHALLENGE TO HACKERS the role of the hacker. ARE YOU A PHEAK??? humorous review of phreaking. HOW TO GET INTO A C O a tour of a central office. FLASH custom calling, Kenyan pay phones, hacker code machine. IRS computer screw up. LETTERS reading list, tracing and law enforcement. UNIX info. NSA phone # 2600 INFORMATION BUREAU interesting phone numbers. how to dial a telephone. New York Tel message. CNA LIST. NSA CIPHER DISK. WHAT A WHITE BOX CAN DO how to build and the use of a portable touch tone generator. A PHONE PHEAK SCORES another successful social engineering story. HACKING PACKARD useful information about the HP2000. FLASH talking clock computers for communists, robot kills man, war games, silver pages. LETTERS Tom Tompkins, secure telephones and cryptography. 2600 INFORMATION BUREAU MILNET hosts by location. PEOPLE EXPRESS TO BE HACKED TO PIECES a look at Peoples new anonymous reservation service. HOW TO RUN A SUCCESSFUL TELECONFERENCE complete guide to Alliance Teleconferencing Service. FLASH hacker bust police hacker. Reagan doesn't dial kids dial a directory. LETTERS computer networks silver boxes 950 remob tracing. 2600 INFORMATION BUREAU Alliance teleconferencing material. INTERESTING PHONE NUMBERS, UNBELIEVABLE, ADVERTISEMENT. GUIDE TO THE ISRAELI PHONE SYSTEM. SHERWOOD FOREST SHUT DOWN BY SECRET SERVICE. SOME WORDS ON HACKER MORALITY OUT OF THE INNER CIRCLE REVIEWED an ex hacker's new book. FLASH who invented the phone, porno phone, wiretap award. AT&T computer steals. LETTERS information charges AT&T cutoff marine calling. 2600 INFORMATION BUREAU 800 prefixes by state. SYSTEMATICALLY SPEAKING goodbye to meter readers. That phone books, tracking devices. TINA Call Me Carl. FROM SHERWOOD FOREST INTRO TO HACKING what to do and not to do. INTERESTING THINGS TO DO ON A DEC 20 how to use various commands and some things to look for. BANKING FROM YOUR TERMINAL A LOOK AT PRONTO - Electronic banking, how it works with a focus on Chemical's system. FLASH \$2 billion error. ITT crackdown, monitoring. 2600 INFORMATION BUREAU Milnet TAC dialups by location. SYSTEMATICALLY SPEAKING MCI goes optical. 100% ESS. GTE bigger than AT&T. SIZE! D! 2600 BULLETIN BOARD IS IMPLICATED IN RAID ON JERSEY HACKERS an accurate account of the Private Sector BBS. COMMENTARY THE THREAT TO US ALL what BBS seizures mean. FLASH 2600 a hacking victim. Middlesex Courthouse. MOVING SATELLITES WHAT WAS REALLY GOING ON? point by point correction of New Jersey prosecutors' fallacious charges. WHY COMPUTERS GET SNATCHED why law enforcement seizes equipment. SOME IMPORTANT QUESTIONS TO ASK provocative questions about these events. HOW CAN SYSPOS PROTECT THEMSELVES? A GUIDE TO VMS how to use DEC S VAX operating system. THE INFINITY TRANSMITTER an old bug explained. REACHING OUT ON YOUR OWN blue boxing verification. PURSUIT FOR PEOPLE - GTE Telnet's computer to computer link up service. FLASH phone in registration. 800 word numbers, war game added, hacker extortionist. 2600 INFORMATION BUREAU Telnet directory of interesting addresses. SYSTEMATICALLY SPEAKING Dick Tracy toys, computer directory assistance. Bell propaganda films. Europe standardizing telcos. MANY FAMILIAR TONES, AND THEY CALL US CROOKS? - story of a phone phreak who can't sell his expertise. AN INTERESTING DIVERSION call diverters and how they are abused. MORE INFO ON VMS second installment of an in depth guide to VMS. FLASH computer elections, big phone bill. Navy phreaks, phone booth captures man. LETTERS BBS suggestion colleges are a goldmine. recommended reading. 2600 INFORMATION BUREAU - Blue Box plans. THE NEW AT&T HOSTAGE PHONE unbelievable ad. SYSTEMATICALLY SPEAKING hackers scare businesses. DuPont bypasses telco, computer campaign info, phone computer's divestiture woes. RSTS A TRICK OR TWO some aspects of this operating system. THE SECRET REVEALED the problem with GTE S GTD-5 switch. HISTORY OF ESS. EQUAL ACCESS MAY NOT BE EQUAL TO MODEMS some problems that may arise. FLASH columnist attacks AT&T, feds dial it too much, little town phones. Springfield mania. LETTERS some advice. CIC S and free calls. British phreak blue boxing gone? CHASE BANK IS CRACKED. 2600 INFORMATION BUREAU many interesting test numbers. SYSTEMATICALLY SPEAKING avoid phones in storms, rural unequal access, police cellular phones, toll free from where? AT&T to read e-mail. OUR WISHES FOR '86 AND BEYOND some of what we'd like to see in the future. FUN WITH COSMOS how to interpret and use parts of the phone company computers. FLASH French phones, racist banter. Cityphone SURVEY reader survey responses. 2600 INFORMATION BUREAU BBS numbers. SYSTEMATICALLY SPEAKING AT&T e-mail. German phones, super pay phone.

We've gotten calls from New York.

Calls from the West Coast.

Down South.

Up North.

We've had calls from England. And Holland. And even Africa.

It seems that quite a few people from all over are interested in running computer bulletin board systems under the name of 2600 Magazine. And it looks as if this may finally be the month that we start to pull it together.

What's so important about a bulletin board network that spans the globe? Well, for one thing it will be an easy way for subscribers and non-subscribers alike to keep in touch with the latest news,

meet interesting people and machines, and get questions answered.

For us, the important thing is enforcement of a very basic freedom—freedom of speech. Our boards will be open to all. Users will have the right to be anonymous if they choose. And privacy will be respected.

It's surprising that it's taken so long for these very basic premises to be accepted. Computer communications have become a vital link for many of us and one of the most important tests of our Constitution in recent memory.

Call our office in a few weeks or watch these pages for further news on this.

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New York's

by Mac+

Just when you thought you'd had enough of Dial-A-Joke and the porno lines, New York Telephone has decided to give you more opportunities to waste your money. The number of information providers, or IP's, is limited on the 976/970 systems. This is because no one has ever made a switch large enough to handle all the potential calls that could be made from 6 million households to a Dial-It service. The smaller systems that work around the nation cannot handle this market. Instead, New Yorkers get a dozen or so lame services, limited to 57 seconds each, while the variety of products in smaller markets dwarf us by comparison. In Los Angeles, for example, there are over 500 IP's. Why not here?

New York Telephone said they couldn't handle it. Once when they advertised the Dial-A-Santa service during the Muppet Show, the network was overrun with calls. From then on, the policy was clear...we can't use the POTS, or public switches, for these services. Now, New York Telephone's division called THE Entertainment Network (for some reason, "THE" is capitalized and underlined) is trying to make up for lost time. By the second quarter of 1988, they expect to have the nation's biggest and most state-of-the-art switch in place dedicated to handling all 976/970 numbers, plus two new ones: 540 and 550.

The switch is an AT&T 4ESS and it'll be located in Williamsburg, Brooklyn. That was deemed the most convenient location where they can have it interface the network (and where there was enough space in a central office). Its job is to take all the 976/970/540/550 numbers dialed throughout the LATA without the customers having to use an area code. That will mean lots of central office (CO) reprogramming and rerouting.

Rather than make all the IP's move to Williamsburg, they located the head-end that interfaces with the IP's in the central office at East 56th Street. That location was chosen based on several criteria. One, the building has to be "sitting on fiber". It needs around the clock maintenance crews, floor space, and has to meet the demands of the marketing department

(something that appears to bewilder the engineering department). Marketing, in trying to satisfy the IP's, had to choose a place that was in a safe neighborhood, was centrally located, and had easy access to mass transit. At a recent meeting where the IP's were first told that telco picked a region that probably has the most expensive real estate in the world, they blew up. The East 56th Street CO roughly serves East 46th Street to East 64th Street and runs from the East River to 5th Avenue and includes Roosevelt Island and the United Nations. Telco would even like to pick the buildings within the region that have the best potential for an easy wire run. (As if the IP's really care what's easy for the installers!)

The 976 folks are now located around a lower Manhattan CO and might have to relocate. Initially when a new switch is activated, it will not handle the 976 numbers itself. That won't happen until about fourth quarter 1988 when they retire the current switch. Until then, all the LATA CO's will route the calls to the Williamsburg CO, then to East 56th, then to lower Manhattan (simple, huh?).

Why go through all of this? Money, and lots of it. With a dedicated switch with a capacity of 64,000 lines (don't tell anyone, that's proprietary), they think they'll clean up. The new system has the most outrageous ways of making them money. It's called IMAS—Integrated Mass Announcement System. The "I" was going to stand for interactive, but that would not have included the passive broadcast system (which is jargon for 976/970).

Some of the features of the new switch are really remarkable. It's completely digital (although analog trunks can be made available to vendors using older equipment). Coin-originated, operator-assisted, and calling cards cannot access the system. Long distance calls had routinely been a problem for the mass announcements. Some of Ma Bell's bastard children don't believe in passing on the money to credit New York Tel. If New York doesn't see the cash, neither does the IP. The new switch will have the capacity to determine if an agreement has been signed between the siblings and will

IMAS

either pass on the 976 calls or deny access. Locally, New York Tel used to maintain direct lines from switches that border our LATA to pass on the 976 calls. However, their eagle-eyed Legal Department made them turn these over to AT&T Long Lines.

550

Let's start with 550. That will be for the Group Bridging Service (GBS). According to a tariff filed, "GBS is a vendor-operated entertainment-related teleconferencing service. The service provides telephone users, [initially] within a limited geographic area, the ability to call a publicized number to join an ongoing, casual, group conversation. The telephone company provides to vendors Group Bridging Service lines and transport over the network. The vendor furnishes the necessary teleconferencing equipment and monitoring functions to ensure free flowing conversations and, if necessary, isolate or disconnect abusive or unruly callers from the service."

Right now, this service is being offered in Nassau and Suffolk counties only. In Nassau, access to GBS is limited to the following CO designations: 239, 249, 264, 285, 293, 367, 371, 391, 420, 454, 531, 598, 691, 692, 694, 752, 753, 789, and 842. Again, if all goes well, by second quarter 1988, this will be LATA-wide. The IP's were made to locate in the area covered by the Garden City CO District for Nassau's GBS lines, or the Patchogue CO District for Suffolk's. When the new switch goes online, they'll have to pack up and move to midtown (real sweet).

Let's talk...money. From the customer, 20 cents for the first minute, and 10 cents for each additional minute connected to the GBS service. On the (proposed) phone bills, the calls will be designated on a separate page as having been made to a GBS and will either repeat the number or the title of the service. (Try to explain this one to mom.) Of course, the IP's would prefer to see it buried as it is in many parts of the nation. To the vendor, compensation will be five cents per

(continued on page 20)

TALKING TO STRANGERS CAN BE COSTLY.

Here are the facts:

It can also be a lot of fun and perfectly safe, with group calling service.

For just 20¢ for the first minute, and 10¢ a minute after that, you can join a group conversation with other anonymous callers. Or you can just listen.

Either way, you'll know how much you're spending by a tone that beeps on your line every five minutes.

The first time you hear it, you'll have spent 60¢. Every time after that, the beep means you've spent another 50¢.

Group calling service phone numbers start with "550." The services are made possible by New York Telephone's advanced network. Program format and content, however, come from other companies who are also responsible for providing more

information, including the actual phone numbers to call.

It's a lot of fun to talk to strangers, but it can get expensive. So talk to your family about it first. Especially if you've got young adults living with you.

Group calling service. Give it a try. You may find yourself calling strangers your friends.

New York lives on New York Telephone.

Group calling service is currently available in Nassau/Suffolk © New York Telephone 1987



New York Telephone

A NYNEX Company

telco response

After months of trying, we've finally managed to get a response from the telephone company concerning our battle to eliminate the fee for touch tone service (see July 1987 issue).

We've received a fair amount of publicity concerning this matter. Consumer-oriented radio stations like WMCA in New York have shown a great interest and devoted time to the growing battle. Several newspapers have reprinted our press release and it was one of those that drew the response which was written by Bruce Reisman, a staff director of media relations for New York Telephone. Since more than a month passed between the printing of the press release and Reisman's reply, we believe that some consultation was involved and that this is pretty much the official view of New York Telephone.

"There is nothing improper here," Reisman states. "This is the practice throughout the United States....It's longstanding public policy." The same words could have been used to describe racial segregation once. The fact that an unfair practice is occurring all over does not make it right or justifiable. And the populace is most definitely waking up to this unfairness.

He goes on to justify the cost, claiming central office equipment that recognizes tones has to be paid for, as well as the labor involved in making the change from pulse to tone. This logic is so flimsy that a child could knock it over. As we said in our press release, touch tone decoding devices are *standard equipment* for practically every central office in existence. Every electronic switch has the capability of allowing touch tones on all of its lines. The only thing preventing this is an "N" instead of a "Y" inside the customer database. Which brings us to the labor question. Just how much should the company rake in for changing an "N" to a "Y" anyway? Reisman says \$10.55 is reasonable. We say let's stop kidding the public.

We were accused of misleading when we claimed that customers very often lost the use of

their touch tones when an area upgraded to electronic switching. Not so, says the phone company—the customer is always asked to pay before service is disrupted. Well, we don't base our conclusions on mere speculation. We know of many people who have lost the use of their tones the instant their central office cut over to electronic switching. The fact that the phone company claims this never happens is further evidence of their distorted perception.

It's only eight cents a day, they protest. Figure out how many people are paying the phone company eight cents a day for doing absolutely nothing. Take into account that the cost is higher for business customers, a fact they conveniently forgot to mention. This is a very large amount of money.

And finally, the usual mistruth: "Touch tone service also enables the customer to conveniently bank or shop electronically from home..." This is simply not true. As long as you have a touch tone phone, you can use any of those bank-at-home services. The only thing the phone company can do is prevent you from *placing* a call with tones. Once you're connected, they have no way of deactivating your tones. The tones, after all, are created inside your phone, not inside the phone company. If everyone realized that, their policy would never have survived this long.

But things are changing. There will be an article in the November issue of *Popular Communications* that points out the unfairness of this fee, not just in New York, but nationwide. We are bombarding the New York Public Service Commission with information about this and we expect some kind of a reaction from that entity. We need your continued support. Spread the word. Tell your parents. Tell your children. Tell your elected officials. Write letters to your local papers and send us a copy. If you're not clear on the facts or have any questions or comments, call us at (516) 751-2600.

Telephone company responds to criticism of Touch-tone fees

by BRUCE REISMAN

The July 23 issue of *The VILLAGE TIMES* carried a viewpoints article about Touch-tone service that did New York Telephone an injustice and begs a response.

Just as there is no free lunch, there is no free Touch-tone service — and here's why.

Under a New York State Public Service Commission (PSC) tariff, anyone using Touch-tone provided by the phone company must pay for it. It's a government-regulated price. If you use Touch-tone, you're supposed to pay for it. If you aren't paying now, you may be asked to do so before long. (All of New York Telephone's rates are regulated by the PSC.)

There is nothing improper here. This is the practice throughout the United States. To our knowledge, all regulatory commissions and phone companies require customers to pay for Touch-tone, a discretionary service. It's longstanding public policy.

The customer is required to pay for Touch-tone's ongoing benefits and for its investment, maintenance and administrative costs. Touch-tone capability requires special pulse identification equipment in local telephone central office buildings plus related equipment modifications.

The fact that certain Touch-tone-serving equipment may "already be in" a local central office is academic. The investment cost of such equipment is generally recovered over a number of years. This is done to make the price of such services affordable to the overall customer body. This is a longstanding



'There is no free lunch. If you want the speed and convenience of Touch-tone, you are supposed to pay for it.'

practice nationwide.

When customers pay for Touch-tone service they are paying for:

- Central Office equipment that recognizes the electronic pulses that will send their calls swiftly over the local telephone network. In older switching equipment "sender boxes" are needed to convert pulses into tones. In electronic switches, a more advanced technology, customer digit receivers are needed to provide Touch-tone capability.

- The labor of the telephone people who make required equipment changes, usually computer software modifications, in the local telephone central office, plus maintenance.

- The ongoing benefits of the service that enable the Touch-tone customer to dial calls about twice as fast as other customers.

The residence Touch-tone customer is therefore required to pay:

- A one-time record order connection charge of \$10.55. This is reasonable and covers the administrative cost of processing a customer's request to change service from rotary to Touch-tone. This charge, incidentally, can be spread over a 12-month period if desired.

- A recurring low monthly charge of \$2.21 that covers the service's ongoing benefits and the long-term equipment costs. This equates to a daily cost of less than 8 cents.

The writer misled when he said "it is not uncommon for an area to upgrade to an electronic system and find that half their Touch-tone phones no longer work." The reality is that when a local central office is converted to a modern (electronic) call-

switching system, the company gains the ability, through computer programming, to detect unauthorized use of Touch-tone service. This does not adversely affect telephone service. It simply means that the company can easily generate a list of customers who are using Touch-tone service—but aren't paying for it. It can then ask customers to pay for it.

Speed and easy dialing are the main advantages of Touch-tone. For instance, in an emergency a Touch-tone call will be connected in only about nine seconds—versus approximately 18 seconds with rotary or pulse phones. It's an "express" connection.

Touch-tone service also enables the customer to conveniently bank or shop electronically from home.

Incidentally, and contrary to popular mythology, customers do not have genuine fast pulse Touch-tone dialing unless they have it provided through a telephone central office that is so equipped.

In general terms, Touch-tone has become just what its designers intended — an increasingly useful electronic computer terminal.

There is no free lunch. If you want the speed and convenience of Touch-tone, you are supposed to pay for it.

(Bruce Reisman is the staff director of media relations on Long Island for New York Telephone.)

the telecom informer

BY GOLDSTEIN

If you're thinking of stealing a bus in Manhattan, you should know that unless you get around an electronic anti-theft device, you'll have the words "Call Police" flashing in the front where the destination usually is. A couple of months ago that's exactly what happened. Except nobody noticed the flashing sign, or at least no one thought anything of it. It seems this guy went around picking up people for free and depositing them at their doorsteps. "All my life I've wanted to do this," he said....We've seen surprisingly few pirate television transmissions recently. In fact, we haven't seen any. But in Poland, they're becoming rather frequent—and popular. Most recently, a Solidarity radio station broke in on the sound frequency of a TV broadcast to urge Poles to shelter a Soviet army deserter who was in town....Mastercard is buying the Cirrus system, which means that Cirrus customers will be able to use Mastercard's telecommunications capabilities and Mastercard will become the world's leading debit card organization. This will link together about 30,000 automatic teller machines starting January 1, 1988....CLASS service is being tested in New Jersey with features like Return Call, Call Block, Priority Call, Repeat Call, Select Forward, Call Trace, and Identia Call. These features make it easier to identify incoming calls and to get through to busy numbers. If any of our subscribers have the opportunity to participate in these tests, please contact us. We have a whole series of experiments we'd like to try on these features....We may as well get used to it: nationwide beepers are popping up everywhere. At a cost of \$30 to \$60 a month, it will soon be almost impossible to be out of range....US Sprint is going through hell. Combining the telephone networks and accounting systems of United Telecommunications and GTE has proven to be a much

greater task than originally anticipated. Already, \$76 million has been written off in uncollectible accounts, apparently due to an inability to function efficiently. Currently, there are three different Sprints in existence: the old GTE Sprint, the old US Tel, and the new US Sprint. And introducing the new fiber optic network and FON cards has added to the pressure....Sprint is filing a number of civil lawsuits against people who are accused of long distance fraud. So far, the lawsuits are for \$20 million plus penalties and have been filed in Kansas City and Seattle. According to Bernard A. Bianchino, US Sprint vice president and associate general counsel, Sprint is filing lawsuits because criminal prosecutors don't have the resources to pursue all leads in these cases....Meanwhile, a really big fraudster has been caught selling Sprint and MCI codes for \$100 each. Thomas Alvord of South Shore Electronics in Lake Tahoe, California allegedly used a computer to scan for codes and even advertised his service in the yellow pages. He used the name "General Bell" which showed up right next to Pacific Bell. Customers would obtain their codes by calling a voice mailbox. It's believed that this one person cost the long distance companies more than two million dollars. As long as they know it's not hacking....AT&T is now distributing free copies of a business-to-business Italian yellow page directory. If you have a need for Italian yellow pages, call 800-538-BOOK....In the mood for some fun? In Washington, DC, students living in college dorms now can disconnect their telephone service without even talking to a Chesapeake and Potomac Telephone representative. Bell Atlantic is testing a service called "quick termination" or "Q.T." A student uses a touch tone phone and calls a special number any time of the day or night. Voice prompts guide the caller through the entire

process. The system can store a maximum of 300 disconnect requests. So far, we're unable to determine what, if any, security precautions are present here....C&P is also experimenting with distinctive ringing. By assigning up to three telephone numbers to the same phone line, each line can produce a different type of ring. Residents will pay about \$4 a month for one additional phone number and \$6 for two. We hope they don't mislead people into thinking they're getting three separate phone lines that can all be used at the same time....The following news item appeared recently in *Network World*. "A Bell Communications Research, Inc. scientist may have found a solution for often-annoying call-waiting tones. Deluxe call waiting, not currently available, can temporarily suspend the call-waiting feature, quell the tone, and signal the second caller to try later. This solution requires complex software to program computerized switches to execute the multitiered signaling between users, telephone company central offices and those placing the calls on the busy line." Let's cut the crap! This service has already been available, at no charge, in many locations for years. All a caller has to do is dial *70 or 1170 before placing a call or during a call and call waiting is disabled. The tone is "quelled" and, as far as signaling the second caller to try again—ever hear of a busy signal? That's what they're talking about, although they make it sound so much more complex. So who is this scientist that has found a solution that already exists? Bell Communications Research and *Network World* are doing us all a disservice by announcing an invention that is nothing new. No doubt this is happening so that we'll get used to the idea of paying for it. Deluxe call waiting, what next?!....The American Credit Card Telephone Company says it plans to offer a new service that would let customers charge

long distance calls to major credit cards from any public or private touch tone phone. A customer would dial an 800 number and enter a Visa, American Express, or Mastercard number. The number would be validated and the call processed in seconds. According to the *New York Times*, this new service will compete with calling cards offered by AT&T. They also say that AT&T plans to offer a similar service by 1989. Does this mean AT&T will be competing with themselves? It wouldn't surprise us one bit....The FBI is installing personal computer networks at remote sites that will be linked via gateways to mainframes at regional data processing centers. The project is known as Intelligent Workstation (IWS) and calls for more than 8,000 terminals, 700 networks, and 640 gateways. Iverson Technology of McLean, VA was awarded the contract....According to a new government report, computers are now keeping track of more than seven million American workers. They monitor rest breaks and productivity, and even the number of individual keystrokes on a terminal or typewriter. The report was requested by Representative Don Edwards of California and was prepared by the Congressional Office of Technology Assessment. It's called "The Electronic Supervisor: New Technology, New Tensions". "We are becoming a surveillance society," Edwards said. "Every day we are seeing new invasions of the privacy and dignity of workers. We have occupational health and safety laws to protect workers' bodies. Now Congress needs to respond to technological threats to their dignity and privacy." The report, which describes today's office as "an electronic sweatshop", said most jobs now monitored by computers were clerical data-entry type positions, but the management technique is spreading to

(continued on page 18)

INTERNATIONAL NUA'S

(accessible from Tymnet & Telenet)

PUBLIC ACCESS SYSTEMS

West Germany

Altos: 026245890040004 login: shox

West Germany

M&T 026245890010006 login: guest

Switzerland

Cybertalk 022846911003 user:Cia0543 pw: guest

OTHER NUMBERS AROUND THE WORLD

0 234 231354354	0 234 220641141	0 234 239232323
0 234 219200101	0 234 221222225	0 234 275300102
0 234 227230301	0 234 212301186	0 234 270712217
0 234 219200871	0 234 222715151	0 234 253265165
0 234 275317173	0 234 247300103	0 234 219709110
0 234 219709210	0 234 263259159	0 234 270712221
0 234 219200190	0 234 219806160	0 234 219200297
0 234 274200103	0 234 219200394	0 234 262500484
0 234 222530303	0 234 241260106	0 234 231354354
0 234 233458158	0 234 239232323	0 234 241260106
0 234 241260260	0 234 246240240	0 234 251248248
0 234 253265165	0 234 253300142	0 234 253300124
0 234 258200106	0 234 258240242	0 234 260227227
0 234 261643143	0 234 261643210	0 234 261643343
0 234 263259159	0 234 270712217	0 234 273417317
0 234 273417217	0 234 275317177	0 234 290468168
0 234 290524242	0 234 292549149	0 234 293212212
0 234 299212221	0 234 307813	0 234 219200118
0 234 223519111	0 234 219200222	0 234 252724241
0 234 2192001082	0 234 222339399	0 234 212301187
0 234 222236163	0 234 2130001511	0 234 215710104
0 234 21440012	0 234 293212212	0 234 274253385
0 234 248300106	0 234 248321321	0 234 227230231

Networks like Telenet and Tymnet usually require an ID of some sort before access to international numbers is granted. Watch future issues for more numbers. Let us know if you get through to any of these.

24 Hr. BBS's in the
Republic of South Africa

The Catalyst BBS	300	(021) 66-3112
The Catalyst BBS	1200	(021) 69-2792
Micro Baud	300	(021) 65-1603
Geonet MDS	300	(021)591-4954
SSSBBS	300	(021)587-1918
The Catalyst P.E.	300	(041) 33-6176
The Catalyst P.E.	12/24	(041) 34-2859
PEEBS/PEREL	300	(041) 30-4573
Border BBS	300	(0431)55-866
The Catalyst JHB	300	(011)782-3332
The catalyst JHB	1200	(011)782-3341
Ideas BBS	3/12	(011)643-3724
Techair BBS	12/24	(011)642-9919
Uninet (16 Lines)	300	(011)476-4519
Uninet (over network)	06550	11101207
Fido-net	12/24	(011)407-5027
Pyroto mountain	3/12	(011)407-5327
The Catalyst DBN	300	(031)764-0353
MABEL	300	(031) 86-7858
Highway Software	300	(031) 74-3561
VALTRONICS	300	(031) 42-1923

THE INFO ON THESE TWO PAGES COURTESY OF
The Greek

READER

Verification and Tracing

Dear 2600:

I have a few things to say and a few questions to ask.

First of all, a lot of people were complaining about the printed size of your recent issues. I personally like the size. I have worked out a nice binder arrangement for them. If you are familiar with the methods that many libraries use for storing magazines and newspapers, you might want to make a smaller version of those for the issues.

However, I am not too crazy about the way you always have the articles continued somewhere else in the issues.

Now, onto the questions: In the October 1985 issue you had a schematic for a blue box. There is one problem, however. The 8038 chip that is used in it is not available anymore. No companies have it or any replacement listed. Are there any that are known that might be more available or can you print a different schematic that doesn't require that part?

I have grown curious lately about the phone systems and what can be done on them through the blue box tones. I have seen a lot of stuff geared towards the American systems. The problem is that I am in Canada and therefore the info is useless. We don't have the multiple carriers and such. To place a call is simple enough. I'm more interested in the verification and things like that. Is there any chance of putting out a list of the different ways to do the known things in the form of a reference manual or whatever as a special issue?

One last thing. I would very much like to know if there is any way to trace a call without the phone company's help and without their knowledge. I have a second line available to do the trace. We have recently had some new

switching equipment installed but I don't know what type it is yet.

Joshua Falkon

As far as finding the equivalent of the discontinued chip, we can only hope some of our readers have found a replacement or alternative and are willing to share it with us. We would be most grateful if our readers would send in any schematics for such devices that they come across—and we know there are some pretty incredible devices out there!

Perhaps you're a little confused about the application of blue box tones. It's true that in Canada you don't have as many long distance companies as the United States. But these companies generally work on touch tone, not multi-frequency (MF) blue box tones. MF tones work quite well in Canada. In fact, they probably work better up there than they do down here. Many central offices in the United States are modernizing, as are the connections within the primary long distance network (AT&T). And one of the results of modernization is an inability to effectively use blue box tones to route calls on your own. Consequently, many phone phreaks call to remote places (more than a few of which are in Canada) where blue box tones still work, and route their calls from there.

Regarding verification and tracing—these require a fair amount of knowledge, experience, and connections (the human kind). However, we do plan on running articles on these topics in the future.

Missing Blue Box Chip

Dear 2600:

I am writing in order to find out some information. I've written a couple of times before about the same thing, so maybe you can help me out. My main question is about page 2-69's blue box

RESPONSE

plans and whether or not they are correct. If they are correct or if they have been updated I would like to know so I can experiment.

Secondly, I'd like to know if you have any listings for toll free bulletin boards or 718 boards. I hope you will get back to me on this—it will be greatly appreciated.

Here is a question you might have one of your staff try to answer for the newsletter readers. It's a problem I have and I'm sure others do too. Being I only have one phone in my house, how can I run a PC through a modem with call waiting?

KM

According to the letter before yours, you'll have trouble getting parts for that blue box. We do expect to be getting other plans, however.

Check the following letter for an answer to your inquiry on 718 boards. Boards are very easy to find. Simply call any board that you know of (if you don't know any, ask your local computer store) and either read the messages that frequently have bulletin board advertisements or look for a function that lists bulletin board numbers. Eventually, you'll find one nearby.

*Call waiting is a very annoying problem for anyone with a computer. The beep of a second call coming in frequently interferes with data flow. As a result, the phone companies are "introducing" a service that should have been available from the start, and in some cases was. There are a few different names for it, but basically it allows you to turn off call waiting for one call, usually by dialing *70 or 1170 before making a call. In many areas, this feature always existed but was never publicized. Now that people are expressing an interest in it, you'll hear about it and also get charged for it. History just keeps repeating itself.*

It might be advantageous to drop call waiting altogether and just get another phone line with tricover from your first line. In most places, there is no charge for this feature, at least not yet. And it gives you the freedom of talking on the phone and sending data at the same time. A two line phone will deliver most of the features the phone company charges monthly fees for: call waiting, three-way, speed dialing. The charge for a second phone line will just about equal all of the little charges they throw in.

BBS Numbers

Dear 2600:

Here are the phone numbers for two computer bulletin boards. 718-499-9277 goes to the O.T.O., an occult order which deals with magic, wicca, and sci-fi. The next number, 404-377-1141 is Illumi-net. They deal with parapsychology, conspiracy theory, UFO's, etc. They're on line 24 hours a day. Have fun.

HAL 9000/Beast 666

Thanks for the numbers. If you have some interesting bulletin boards, let us know. And remember to support bulletin boards by participating in them. They're one of the most vital links to freedom of speech that we have in the 1980's.

Getting Started

Dear 2600:

I am sort of a new kid on the block when it comes to hacking. So could you please indulge me if I am not of equal proportion to you. Could you tell me what steps I should take as a beginner in the field of hacking? First I would like to give you a background on myself if I may. I am 15 years of age. I am a known under-achiever in my school. My teachers press me for answers but I refuse to comply with their methods. My hobbies are computers and

(continued on page 16)

THOSE SILLY CODES

A reader from Oregon recently wrote: "Some friends and I were on a conference call 'social engineering' our local SCC (Switching Control Center). We were trying to find out where a call to an unknown exchange was going. The man at the SCC asked us what the 'silly code' for the originating office was. We, of course being confused, told him we would check with our supervisor and call back. What *is* a 'silly code'? How do I find out what mine is?"

Our technical writers did some investigating and this is what they came up with:

In this instance the word that is pronounced "silly" is actually CLLI (Common Language Location Identification). Quoting from a Bellcore publication: "This code set uniquely identifies locations ranging from earth stations, building, poles, manholes, etc. Codes can be used to identify existing or proposed buildings and can aid long range planners, current planners, equipment engineers, installers and maintenance personnel in their work. Location codes identify cities, states, and foreign countries as well as buildings and specific entities within buildings."

A CLLI code is an 11-character code used by the telephone companies to identify the location and type of a central office. The 11-character identifier is broken down as follows—town: 4 alpha characters, state: 2 alpha characters, building: 2 alphanumerics, and building subdivision: 3 alphanumerics.

Here are some examples of towns: RCMD—Richmond, VA; CHCG—Chicago, IL; DLLS—Dallas, TX; DNV—Denver, CO; NYCM—New York (NY City Manhattan), NY.

States adhere to standard postal abbreviations, with the additions of: PR—Puerto Rico; VI—Virgin Islands; AB—Alberta, Canada; BC—British Columbia, Canada; MB—Manitoba, Canada; NB—New Brunswick, Canada; NF—Newfoundland, Canada; NT—Northwestern Territories, Canada; NS—Nova Scotia, Canada; ON—Ontario, Canada; PE—Prince Edward's Island, Canada; PQ—Quebec, Canada; SK—Saskatchewan, Canada; YT—Yukon, Canada.

The building field will always have an X in it if the central office in question does not belong to AT&T or a Bell Operating Company (BOC). The

building subdivision of an end office or subscriber-serving central office uses short codes like the following, x being numeric: MGx—Marker Group, used to represent electromechanical switches such as crossbar; CGx—Control Group, used to represent a 1, 1A, 2, 2B, or 3ESS office; DSx—Digital Switch, used to represent a 5ESS, DMS100, or other digital switches.

Small independent phone companies often make their building subdivision codes the exchange code of their central office, such as 921, 423, etc. AT&T numbers its 4ESS toll switches with a 2-digit numeric followed with a T (57T, 13T).

Here are some examples of CLLI codes: CHVLVAXA921 would be Charlottesville, Virginia, independent telephone company, building A, exchange 921. DNVRCOZUCGO would be Denver, Colorado, Zuni Street, ESS machine 0. CHCGIL0257T would be Chicago, Illinois, building 2, 4ESS number 57. (Note: in cases where the building subdivision ends in xxT, the building code may be the number that comes after an error message from that particular 4ESS. For example, CHCGIL0257T's error message might be: "Your call cannot be completed as dialed. Please check the number and dial again. 312 2T." They don't say "02".)

In the future, if you have any technical or not-so-technical questions about computers, phones, or anything else, send them in. If we get enough information about the subject, we'll publish the answer in the form of a short article. Otherwise, questions will appear in the letters section. Our address is 2600 Editorial Department, PO Box 99, Middle Island, NY 11953-0099.



MIKE AGRANOFF

Author of

*'The Ballad of Captain Crunch'
published earlier this year in 2600
will appear in concert on Nov. 21
at 8 pm in Mount Sinai, New York.
CALL 516-751-1339 FOR INFO*

DON'T BE A SLAVE



W.O.R.M - For CyberPunks

Subversion By Technology

Send \$1 To: W.O.R.M - Room 250

2228 S. El Camin Real

San Mateo, California

94403



TO THE SYSTEM

READER

Private Sector Style

Dear 2600:

After reading the June issue of 2600, I decided to get right into the idea of putting up a system that would be either a network or just another Private Sector. I already have a system up that has the exact same sub-boards as the Private Sector did. I also have most of your *old* g-file section and almost all of your digests already on line. Pretty good? My system has been up since the beginning of the year. However I have had numerous hardware problems and the system has been up and down. I've raised my memory to two megabytes and now have a US Robotics 2400 baud modem. I also have a 20 meg hard drive with about 14 megs left.

I was very impressed with the Private Sector and I have the same rules you did. No codes. Just information. Even there I am regulating what goes on (credit card fraud). If you or your readers want to call, the number is 213-559-7306.

We wish you luck. In the interests of freedom, don't go overboard with "regulating" discussion. Keep the codes and passwords from being posted, as well as anything obscene or offensive to users, but be careful with trying to control the flow of conversation too much or you'll be running a dictatorship. And if you have private mailboxes, they should remain private. System operators should not read their users' mail unless that is their stated policy.

More on Disclaimers

Dear 2600:

I would like to comment on your July issue, "On Disclaimers". Your response that there is "no such thing" as a "perfect disclaimer" is *not* correct! We have yet to be prosecuted or sued over any of our publications. No police entity has even talked to us about

(continued from page 13)

basketball, mostly computers. My parents threaten to take away my computer which is an IBM PC if my grades don't improve and I tell them C's are average but they still want A's from me. The computer is half mine—I put in well over two thousand dollars. Well, back to hacking. First, what are some approaches that I can take in getting into another computer system to explore it for the wealth of information that I could use? Next, is there any device or gadget I can make to tell when my phone call is being traced? Third, I would like to know if you have some of the many phone phreaking devices known to us hackers? If so, I would be willing to purchase them for a reasonable fee. Also, do you have a program called a worm. I would like it for a BBS that sent a logic bomb in a program to me. This bomb wiped my TI's memory right out.

JS

If you read 2600 enough, you should get a good feel for what kind of systems are out there and the "wealth of information" they contain. We can't condone breaking into any of them, but we can say that if you're determined and skilled, you'll most likely get into something. Hot water, in all probability.

We know of no such device that could alert you to your phone being traced. Perhaps some government phones could do that, but we don't think it's possible at this stage in the game. Besides, how could it tell you that you were being traced before you actually got traced? It wouldn't do much good.

The 2600 Marketplace is your best bet for finding electronic devices. Ads are free to subscribers. We don't approve of logic bombs, but we do want to show you what they look like. If anyone has one, please send it in. (On paper, please.)

RESPONSE

them! A Ma Bell security type once came to my home to lecture me on phone color boxes (1981). I threw him out. End of conversation!

I'm aware of a number of controversial BBS's run by teenagers with twice my IQ. However, when it comes to effectively disclaiming their user files, their IQ's drop to room temperature. The *wrong* approach is to question users as to police affiliation. The *right* approach is to present controversial files for educational purposes only—even to state that no illegal use is suggested, implied, or intended. It also helps much to intermix purely illegal applications with those that are legal so it can't be claimed that your files have no reasonable applications except those that are illegal. For example, great sex associated with a plot is "necessary for plot development". Otherwise, it's just pornography.

John J. Williams
Consumertronics

Unfortunately, a lot of those rules still don't seem to apply to computer bulletin boards, even though they are in effect just another form of publication. We feel the key lies in making this connection clear to the people inside and outside the computer world.

And More

Dear 2600:

In response to "MAC???", the perfect BBS disclaimer is found in the Bill of Rights—the right to peaceably assemble, freedom of press, etc. This, ending with a note on what are forbidden activities (dealing in drugs or child pornography) along with a warning that anyone in violation is endangering the board and will be banned, would be an adequate disclaimer. To JD: Why not bounce a laser off a cloud at night? (During World

War II morse code search lights were bounced off clouds.)

N.E. Mouse

British Payphones

Dear 2600:

The information printed on reusable British cardphones in the January 1987 issue of *2600* is inaccurate. The frauds were perpetrated by the user inserting his card into the phone, turning it off and back on again (booting) with credits being reset and not removed when a call was placed.

It seems that people are catching onto the idea of bypassing the payphone altogether by attaching a handset with alligator clips to the main wire coming into the phone. Users of this method have complained that they can hear the unit beeps coming down the line over the voice line.

Almost-free international phone calls can be made from any coin operated payphone in the United Kingdom. To call anywhere in the world for approximately 30 seconds, all you have to do is insert 10 pence into the phone and dial. When 30 seconds are up, the phone will start beeping, prompting you to insert more money to continue the call.

Charges for calls from payphones don't go through the operator, but loop back to the payphone after the computer figures out where you are calling to. This process usually takes more than 30 seconds depending on where you are located in relation to an exchange.

John Drake

the telecom informer

(continued from page 9)

other more complicated work. This is leading to a substantial increase in stress level. And it doesn't stop there. Computers are installed on the dashboards of trucks to record speed or how long a driver stops for. They can now also be monitored by satellite. Drug tests are popping up all over the place and they can tell a great deal about a person's private life. Telephone logs and video cameras are also on the rise.

Today's technology makes it easy and cheap to monitor all kinds of things. In Alexandria, Virginia, there are devices called telecoms. Basically they're telephones with cameras attached used to monitor people on probation and parole. The person calls the corrections officials after his "curfew". The telecom transmits a photograph of the person talking every few seconds. The authorities know that the person is at home and is not using an impersonator. According to the authorities, the subjects don't think of this device as intrusive at all. It will be used more and more in the future, they say. "Every day an American wakes up, he or she is less free as far as private information is concerned," says Edwards. "Privacy is being invaded on a wholesale basis." Computerized tracking in this country now begins at age five, when children claimed as dependents must apply for a Social Security number. That number becomes their name. One FBI system is named Big Floyd. It plots relationships between people entered into a crime data bank and draws a graph of those relationships. It then reveals if the suspects seem to have violated labor-racketeering statutes. The IRS is interested in a similar arrangement. Where is it all leading?.... The State University of New York at Buffalo has adopted new computer methods to conceal the identity of reading material its students borrow. In November 1986, the university refused an FBI request for

records on material a foreign student borrowed. Later they were forced to surrender the records when served with a subpoena. Stephen Roberts, associate director of libraries for the university, says the new system destroys the link between a person and any books as soon as the books are returned. He says, "We think you ought to be able to read whatever you want without anybody asking questions about it." Amen.

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Due to a typesetting error that we still haven't figured out, a portion of last month's article on telephone operators was omitted. The missing portion, which should have appeared three lines from the bottom of page 6, column 1, reads:

"959 is not a valid exchange. So instead of getting a coin test, you wind up with a recording.

" • It seems that in some older offices, New York Telephone has calls routed in such a way that if a 0+ call is made and the area code is a valid out-of-LATA area code (914, 301, 415, 215, 503, 714, 412, etc.), the call goes to an AT&T TSPS. All area codes (NPA's) in New York City go to the TOPS. This includes valid New York City LATA area codes (718, 516, 212)...."

And that wasn't all. Simple human error led to two fouled up phone numbers last month. One was the number for the Mainstreet Data BBS on the letters page, column 1. The number should be 619-439-6624. The other number appeared in the first ad of the 2600 Marketplace. That number should be 514-288-6731. We hope these mistakes didn't cause anyone undue stress and we can only hope that similar occurrences don't

2600 marketplace

FOR SALE: Radio Shack CPA-1000 Pen Register. Just like new. \$70.00. J.C. Devendorf, 29261 Buckhaven, Laguna Niguel, CA 92677-1618.

DO YOU HAVE old outdated computer equipment lying around gathering dust? Why not donate it to 2600's growing bulletin board network? Support freedom of speech in your time! Contact 2600 at (516) 751-2600 or write 2600, PO Box 752, Middle Island, NY 11953.

FOR SALE: SWTPC Model CT-82 intelligent video terminal. Completely programmable (150 separate functions), RS-232C & parallel printer ports, full ASCII keyboard w/cursor control pad, 9" P-31 CRT w/7x12 dot matrix—up to 92 column capability, 32 baud rates to 38,400—much more. Excellent condition with full documentation. Originally \$800, sell for \$125 or best offer. Bernie Spindel, 144 W. Eagle Rd., Suite 108, Haverton, PA 19083.

FOR SALE: COMMODORE 8-BIT ROBOTICS KIT by Fischertechnik. All hardware, interface, software and manuals included. Mint condition. \$399. Sendphone # to: Box 571, Forest Hills, NY 11375.

BEST HACKER AND PHREAKER written public domain software for the Apple II family. Two double sided diskettes full of communication and deprotection utilities. These programs were combed from the best BBS and clubs nationwide. Send \$10 cash, check, or MO to Mark B., 1486 Murphy Rd., Wilmington, OH 45177-9338.

WANTED: Technical data for pay phones, dot matrix printers, and/or modems. Looking for schematics and theory of operation. Call (205) 293-6333/6395, 7 to 4 CST. Ask for Airman Parochells. Cannot accept collect calls.

TAP BACK ISSUES—complete set (vol. 1-84) of high quality copies shipped via UPS or first class mail for \$100⁰⁰. Over 400 pages of TAP material including schematics and special reports. Checks/M.O. to "P.E.I." Cash, M.O. shipped same day. SASE for sample. Pete G., P.O. Box 463, Mt. Laurel, NJ 08054.

GOT SOMETHING TO SELL? Looking for something to buy? Or trade? This is the place! The 2600 Marketplace is free to subscribers! Just send us whatever you want to say (without making it too long) and we'll print it! Only people please, no businesses! Address: 2600 Marketplace, PO Box 99, Middle Island, NY 11953. Include your address label.

DOCUMENTATION on electronic & digital PBX's and switching systems. Willing to trade/purchase. Also looking for Bell System Practices and other such paraphernalia. Write to Bill, c/o 2600, PO Box 752B, Middle Island, NY 11953.

32K MODEL 100, U1-Rom II, drive, TS-DOS, spreadsheet, modem cables, AC adaptors, briefcase included, good condition, \$1200. New, make an offer. Tandy 2000 version of WordPerfect 4.0 \$150 or trade for 1200 or 2400 baud external modem. IBM PC & XT & AT version of WordPerfect 4.1 and MathPlan 2.1. \$250 or trade for 1200 or 2400 baud external modem. Call (803) 244-6429 or (803) 233-5753. Ask for Paul.

WANTED: Looking for a good used 5 or 10 megabyte hard drive for the Apple II series of computers. If you are selling one or know of anyone that is then send replies to: Brian F., 1003 W. Main, Apt. 3, Ottawa, IL 61350.

TAIWAN! All Taiwan computers and accessories available for direct shipment for cost plus shipping plus 3% (quantities of 50 or more). Giles, PO Box 12566, El Paso, TX 79913.

2600 MEETINGS. Fridays from 5-8 pm at the Citicorp Center in the Market—153 East 53rd Street, New York City. Come by, drop off articles, ask questions. Questions? Call 516-751-2600.

FOR SALE: Ex-Bell blue boxes, old and stylish, may even work! Also a wide range of old Bell comms equipment. Call (514) 288-6731 and ask for Rick for details.

IMAS

(continued from page 5)

minute. But don't forget, they still have to buy teleconferencing equipment, which is not made by Western Electric (AT&T Technologies) or Nynex; they must provide a "conversation facilitator" (usually one for every eight teleconferencers), they must pay monthly line charges, leave huge "performance bonds" on deposit (subject to forfeiture), pay foreign exchange charges if they locate outside of the East 56th Street CO district, and guarantee minimum performance levels. The new tariffs have not been written yet so the exact numbers are still not available.

The teleconferencing equipment must be pretty neat stuff. It must have the ability to play an introductory message, about a minute in length, welcoming the callers and explaining the costs. Then it must hunt for free space on a moderator's console, and provide an alert tone every five minutes that the person is connected. Also, there must be a way for the moderator to identify and isolate/disconnect an unruly caller. There are about 16 companies that make GBS equipment.

540

Profit margins too thin for your taste? Don't worry! Say hello to the 540 exchange. Its primary feature—Sponsor Selective Pricing (SSP). New York Tel will bill whatever the IP wants to charge. Although they haven't filed the tariff yet, the product manager said she'll probably pick some maximum (so they won't cause parents with little children to get heart failures). Telco will bill the vendor 30 cents for the first minute and five cents per 30-second unit. In an SSP system in Boston, an IP charges about double that. Now the money adds up. One IP reports that the promo teleconferences that he runs throughout the country earn \$1.19 to \$1.80 per call. With that kind of cash, why doesn't the phone company just take a percentage? After all, it's their network and their billing and collection department. The answer is that it just doesn't look right for a public utility to be "in bed" with a promo line.

Note that the phone company will probably put a limit on the time you can spend on the 540 exchange. Five minutes is being discussed, but there's no final word yet. They are trying to

discourage the IP's from price shopping between the 540 and 550 exchanges.

Is teleconferencing all that it does? Nope. What it does is what the IP wants to do. Telco will transport the call, time it, and bill. What the IP does on his end is up to him. It could be an AudioText Service, like the passive broadcast announcing systems such as Dial-A-Jock [sic]. It could be a touch tone interactive system, much like the daily horriblescope service where you touch tone your birthday and the IP's database accesses that slot in a voice mailbox system. It could also provide a PIN screening/security system (hackers: on your mark!).

In Los Angeles, one telepomographer (coined here first?) produces Dial-A-Perversion (not the real name). At the tone, press 1 for straight phone sex, 2 for gay sex, 3 for bestiality, and so on. He plans to do the same here. He also wants to bring to NY that same ability in teleconferencing whereby you touch tone your perversion and are connected to other like-minded people under the auspices of a specially-trained moderator. (One presumes that also means dogs and goats will have to be outfitted with headsets.)

He's a fascinating guy. He thinks the people who call are pretty sick and he hasn't called his own service in quite a while. He has even stopped checking up on his recording studio where new tapes are always in production. To make additional revenue, he not only uses the tapes in the several markets where he operates, he rents them to other telepomographers around the country. (I thought that heavy breathing sounded familiar.)

976/970

Now, the ever-popular passive 976/970. The new tariff has increased the charges for 976/970 calls. They now charge 28 cents and give no time-of-day discounting. If any such calls were made during the billing period, you'll be hard pressed to figure out how many. The charge will be added to the first line of your local-call billing page. That's the one that looks like a spreadsheet. And guess what? They're also proposing to redesign that page. Even as you read this they are test marketing the new page. (How come they never ask me?)

Whereas now they start column one delineated by bands A, B, C, D, and E, they propose to actually state in that column where that band is (U WSTCHR, E SUFFK, etc.). The first row will be the band you're in. Under that, all other rows will be the info for calls made to other areas within the LATA, listed in ascending order of cost (the further down, the more expensive). The next column is cost, initial, then incremental. Next is the number of calls made during the day/non-discounted rate. Then the additional minutes column, then the total charged for that rate. That is where they'll bury the 976/970 28 cent costs. Says the phone company, "If they want to know how many calls were made, they can do the math." (Yeah, right. Now here's another reason to buy a PC for the home.) Also, they'll change the note on the bottom of the page if at least one 28 cent call was made during that billing period to indicate as such.

The revenue to the IP's also goes up. They earn their money based on call volume. Currently, the first 250,000 calls per month earn them two cents each. Then there are several increments until they hit the top level. Over 4,000,000 per month earns them 2.5 cents each. The new proposed levels are: 3.5 cents per call for the first 144,000 calls; 3.75 cents for 144,001 to 432,000 calls; 4 cents for 432,001 to 1,152,000 calls; 4.25 cents for 1,152,001 to 2,304,000 calls; and 4.5 cents for over 2,304,000 calls.

Why doesn't everyone sign up? I haven't told you the bad news. Shortfalls. An IP must maintain a minimum call volume of 57,600 calls per month. Any amount under that will be charged to the vendor at a rate of 24.5 cents each! For example: let's say a dial-it service received only 21,000 calls in one month (700 calls a day times 30 days). They'll earn 21,000 times 3.5 cents or \$735. Then they'll be hit with a "charge back" of 57,600 minus 21,000 times 24.5 cents or \$8,967. That yields them a negative \$8,232 for the month. (Talk about a big phone bill!) However, with a customer base of six million, your call volume should be tremendous. The good news is that this is a much lower charge-back level than ever before. Telco wants to encourage more narrowcasting for this 57-second passive AudioText service.

Watch this space. This might all change between now and second quarter 1988. The IP's

have formed an association to fight the little Bells, wherever they might be. For some reason, they feel the regional phone companies don't play fair when writing these tariffs. (There's a shock!) What effect they'll have between now and then remains to be seen. In the meantime, New York Tel continues its installation at a record pace.

976 numbers in 212, 914, 516 area codes

976-1111	.....	The Pro Wrestling Action Line (Daily News)
976-1212	.....	..... Newsday Weather Service
976-1313	.....	..... Daily News Sportsphone
976-1414	.....	..... Lottery results in Spanish
976-1616	.....	..... Time and temperature
976-2020	.....	..... Lottery results
976-2121	.....	..... Race results
976-2222	.....	..... OTB results
976-2424	.....	..... Sports
976-2525	.....	..... Daily News Sportsphone Extra
976-2626	.....	..... Live Wire/High Society Sexline
976-2727	.....	..... Live Wire/High Society Sexline
976-2828	.....	..... Live Wire/High Society Sexline
976-2929	.....	..... Action Line (Wrestlers' Forum)
976-3232	.....	..... Lottery results in Spanish
976-3333	.....	..... Race results
976-3434	.....	..... Lottery results
976-3535	.....	..... Sexline (affiliated with 976-8888)
976-3737	.....	..... Sexline
976-4141	.....	..... Dow Jones Report
976-4343	.....	..... Lottery results
976-5050	.....	..... Liz Gardner Horoscope (Aries)
976-5151	.....	..... Liz Gardner Horoscope (Taurus)
976-5252	.....	..... Liz Gardner Horoscope (Gemini)
976-5353	.....	..... Liz Gardner Horoscope (Cancer)
976-5454	.....	..... Liz Gardner Horoscope (Leo)
976-5656	.....	..... Liz Gardner Horoscope (Virgo)
976-5757	.....	..... Liz Gardner Horoscope (Libra)
976-5858	.....	..... Liz Gardner Horoscope (Scorpio)
976-5959	.....	..... Liz Gardner Horoscope (Sagittarius)
976-6060	.....	..... Liz Gardner Horoscope (Capricorn)
976-6161	.....	..... Liz Gardner Horoscope (Aquarius)
976-6262	.....	..... Liz Gardner Horoscope (Pisces)
976-6363	.....	..... Stock market report
976-6767	.....	..... Educational "detective" service (Daily News)
976-6969	.....	..... Race results
976-7676	.....	..... Lottery results
976-7777	.....	..... Lottery results
976-8282	.....	..... Liz Gardner lovecast (horoscope)
976-8383	.....	..... Race results
976-8484	.....	..... Lottery results
976-8888	.....	..... Sexline (affiliated with 976-3535)
976-8989	.....	..... Chen/Live Wire/High Society Sexline
976-9999	.....	..... TONE

970 numbers in 212, 914, 516 area codes

970-0000	.....	..... Spanish Sexline
970-0707	.....	..... Mr. Happiness (lucky numbers)
970-1010	.....	..... Tales of Terror (Daily News)
970-1717	.....	..... Scorephone
970-1818	.....	..... Scorephone Plus
970-4747	.....	..... Sexline (originates in Seattle)
970-4848	.....	..... Lesbian Sexline (originates in Seattle)
970-7272	.....	..... Submissive Sexline (originates in Seattle)
970-7878	.....	..... Sexline (originates in Seattle)
970-7979	.....	..... Sexline (affiliated with 900-410-6749)
970-8080	.....	..... Dominant Sexline (originates in Seattle)
970-8686	.....	..... Telefonos de Fantasias (Spanish Sexline)
970-8787	.....	..... Kinky Sexline (originates in Seattle)
970-9090	.....	..... Sexline (originates in Seattle)
970-9494	.....	..... Anal Sexline (originates in Seattle)
970-9898	.....	..... Live Wire/High Society Sexline
970-9999	.....	..... Gay Sexline

540 numbers reachable from 212, 914, 516 area codes

540-5400	.....	..... Jeanne Dixon's Horoscope
540-5050	.....	..... Daily News Sports Trivia

550 numbers reachable from 516 area code

550-4222	.....	..... Conference Call
550-8336	.....	..... Conference Call
550-5555	.....	..... Conference Call

Here are the results of the 2600 Contest, where we asked for funny and interesting ways of answering the phone: It was not quite what we expected. The most common entry was "City Morgue—you kill 'em, we chill 'em" or some similarly macabre variant. A few people, when they answer the phone, like to pretend that they are answering machines or telco recordings. Or even their local police department. Since so few of the entrants conformed to our judgement criteria and since there was no clear winner, we're averaging out the two prizes offered and giving each of the three best entries a one-year extension to their 2600 subscriptions. And the winners:

"This is Bullwinkle. Wanna *hear* me pull a rabbit out of my hat?"—**3-RARE, Prospect Heights, Illinois.**

"If you tell me you've got the wrong number again, I'll carry out my threat."—**North Babylon, New York.**

"I thought I told you never to call me here."—**Clintown Township, Michigan.**

If you see your entry here, then you've received an extra year on your subscription.

2600 BACK ISSUES (continued from inside front cover)

1986

PRIVATE SECTOR RETURNING—Back online soon but many questions on seizure remain; THE BASICS: DIVESTITURE: WHAT HAPPENED?—an explanation of that which is confusing the populace; FLASH AT&T steals customers, Dominican blue boxes, computerized hooky catcher, Falwell attacked by computer, an astronomical phone bill, dial-a-porn update, phone booth victorious, LETTERS: Getting credit from alternate carriers, tracing methods, mobile phones, Manitoba raid, 2600 INFORMATION BUREAU—blue box programs, SYSTEMATICALLY SPEAKING—confusing payphones, code abuse software, centrex features in your house, VAX 8650, overcharge hunters; VMS: THE SERIES CONTINUES—more on security features; IT COULD HAPPEN TO YOU!—what happens when hackers have a fight, DIAL BACK SECURITY—holes in the systems, FLASH abuse of party line, unique obscene caller, news on pen registers, reporters steal Swiss phones, pay phone causes panic, LETTERS: asking questions, blue box correctors, Computel complaint, BBS security, 2600 INFORMATION BUREAU—assorted numbers, SYSTEMATICALLY SPEAKING: Sprint and US Tel merge, write protect tabs wrong, Bell Atlantic chooses MCI, cellular phones in England, infrared beeper, electronic tax returns, acoustic trauma; AN OVERVIEW OF AUTOVON AND SILVER BOXES—the military phone network and how your touch tone phone can play along; AN AMERICAN EXPRESS PHONE STORY—a memory of one of the better hacking escapades, FINAL WORDS ON VMS—security devices and assorted tips, FLASH hacker zaps computer marquee, Soviets denied computer access, calling the shuttle, new ways of stealing data, computer password forgotten, LETTERS: corporate rates, defeating call waiting, ringback numbers, where is BIOC?, credit where it's due, special 800 number, THIS MONTH AT 2600: Private Sector's return, Computel and Compuserve, Telepub '86, a postal miracle, SYSTEMATICALLY SPEAKING: Jamming satellites, TASS news service, Soviet computer update, dialing the yellow pages, Northern Telecom to destroy CO's, more phones than ever, RSTS FOR BEGINNERS—basic system functions, login procedures, MOBILE PHONES THEORY AND CONSTRUCTION—how to build your own mobile phone, FLASH: British phone booth wedding, another large Sprint bill, bad tenant databases, car breathalizers, phone phreak fined, Marcos phones for free, LETTERS: blue box coding, electronic road pricing in Hong Kong, UNIX bugs, more on AF hacking, A STORY OF EAVESDROPPING—from World War II, THIS MONTH AT 2600: transcripts of Private Sector raid, more on Computel; SYSTEMATICALLY SPEAKING: 617 to be divided, Congress chooses AT&T, Baby Bells don't pay AT&T bills, equal access 800 numbers, data encryption, DA failure, AT&T loses its zero; X: PROITS IN OPERATOR HELL—harassing operators from Alaska, THE COMPUTEL SCOOP, FLASH: Bellcore publications go public, US and France: link phones, computer grammar, shower phone, cellular modem, high tech parking meters, Congressional computer; LETTERS: foreign phone systems, Russian phone books, numbers to dial on a blue box, Boston ANI, Cheshire Catalyst, CNA, ways of answering the phone, 2600 INFORMATION BUREAU—Autovon numbers, alternate phreaking methods for alternate carriers; SYSTEMATICALLY SPEAKING: Wrestlingmania pins Bell, sting boards on the rise, American Network fears hackers, free pay-phones plague New Jersey, disposable phones, hacker terrorists, COMPUTER CRIME REVIEW—a review of the report from The National Center for Computer Crime Data, HOW TO HACK A PICK—An introduction to the Pick operating system and ways of hacking into it, NOTHING NEW IN COMPUTER UNDERGROUND—review of a new book, FLASH: New York's new computer crime law, a \$6,829 phone bill, how big computer crime pays, public phone secrecy, Capitol Hill hacker, Citibank money games, LETTERS: English phreaking, ways of tricking sting BBS's, called party supervision, 2600 Phun Book, Captain Midnight, RCI, 2600 INFORMATION BUREAU—some phone numbers, RESOURCES GUIDE; SYSTEMATICALLY SPEAKING: Hands across Telenet, calling Kiev, Nynex bumps off Southwestern Bell, stock market crash, cellsite names, videophones, VIOLATING A VAX—Trojan horses, collecting passwords, etc., etc.; THE FREE PHONES OF PHILLY—Skyline providing completely free service from pay phones, FLASH: town crippled by telco strike, prisoners make illegal calls, hacker degrees, New Jersey tops taps, et al is tapped, water company wants customers' social security numbers, computers strike again, federal employees "tracked"; LETTERS: Association of Clandestine Radio Enthusiasts; ITT correction, NSA, more on VMS, Telecomputist, a 950 trick, 2600 INFORMATION BUREAU—World Numbering Zones, SYSTEMATICALLY SPEAKING: AT&T selling pay phones, automated operators, cellular dial-by-voice, new British phone service, no data protection for Hong Kong, Congressional fraud hotline, federal phone failures, Indiana telco threatens AT&T, KNOWING UNIX—sending mail and general hacking, A TRIP TO ENGLAND—and the fun things you can do with phones over there; FLASH: Phone fraud in governor's house, Big Brother, Teltec fights back, vandalism, 911 calls; LETTERS: shutting down systems, legal BBS's, VAX VMS tips, 2600 INFORMATION BUREAU—a list of telcos, a list of area codes and number of exchanges, SYSTEMATICALLY SPEAKING: USSR computers, ATM's in China, NYCE, TV blue boxes, government phones, rural radio phones, SOME FACTS ON SUPERVISION—answer supervision explained, RCI & DMS-100 BUGS, ANOTHER STINGER IS STUNG—Maxfield exposed again; FLASH: NSA drops DES, hackers on shortwave, Big Brother traffic cop, crossstalk saves a life, Indian phones, video signatures, FBI shopping list, airplane causes confusion, LETTERS: Captain Midnight, annoyance bureau, SL-1 switches, credit; PBX's, 800 word numbers, public CNA's; 2600 INFORMATION BUREAU—Winnipeg numbers, SYSTEMATICALLY SPEAKING: Sprint overbills, AT&T ranks #1, portable VAXes, call rejection, DEATH OF A PAY PHONE—nasty business, TRASHING AMERICA'S SOURCE FOR INFORMATION—still more tactics; FLASH: FBI investigates coffee machine, CIS copyrights public software, Navy software, HBO encryption, Indiana "Fones"; LETTERS: Numbers, telco harassment, Puerto Rican telephones, Q's and Z's, 2600 INFORMATION BUREAU—Overseas numbers, SYSTEMATICALLY SPEAKING: Electronic tax returns, software makers crash BBS, ICN, Ultraphone, ESS in Taiwan, NSA wants new chip, ICN—MORE THAN A BARGAIN—a look at one of the worst phone companies in the world, MASTERING THE NETWORKS—communicating on Arpanet, Bitnet, etc.; FLASH: Reagan tortures patients, FBI angers parents, Q and Z controversy, LETTERS: Telenet hacking, ANI's, 811, 976 problems, 2600 INFORMATION BUREAU—British BBS numbers, WRATH OF GOD STRIKES 2600; SYSTEMATICALLY SPEAKING: Banks link arms, Sprint has too many customers, new payphones, nickname listings, computer college, A LOOK AT THE FUTURE PHREAKING WORLD—Cellular telephones & how they work, HOW CELLULAR PHONES CAME ABOUT AND WHAT YOU CAN EXPECT, THINGS WE'RE NOT SUPPOSED TO KNOW ABOUT, FLASH: Avoiding rejection, phreaks tie up circuits, North Carolina hackers, international hacking, paying for touch tones, writetaps, LETTERS: Equal access 800 numbers, strange numbers, Irish phreaking, disabling call waiting, 2600 INFORMATION BUREAU—Netmailsites, SYSTEMATICALLY SPEAKING: Free directories, fingerprint ID system, navigating with CD's, sweeping for bugs.

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