

JANUARY, 1986!

VOLUME THREE, NUMBER ONE

Private Sector Returning BACK ONLINE NEXT MONTH BUT MANY QUESTIONS REMAIN

The Private Sector bulletin board system (the official BBS of 2600 Magazine), seized by New Jersey authorities on July 12, 1985, is in the process of being returned. However, Tom Blich, the system operator, feels he is being forced to plead guilty to a token offense.

When the board was taken, the prosecutors seemed to have little idea as to what it was they were looking for. At a press conference the following week, they claimed that Blich and six others were moving satellites in space with their computers and doing strange things to the nation's defense department. Now, six months later, this, or anything else, has yet to be proven in Tom's case.

On December 6, Judge Mark Epstein gave Assistant Prosecutor Frank Graves one last month to find something in order to prove his conspiracy case, otherwise the case would be thrown out. Graves only came up with a blue box program that was originally discovered on the Private Sector's hard disk back in July. This program was consequently defined as a "burglary tool". "Cat's Meow", the program's title, can be used to generate blue box tones (MF tones), as well as regular touch tones, speech synthesis, and other sound effects. Middlesex County reportedly sent the program, along with Blich's whole computer system to Bell Labs to see if it could produce the nasty MF tones. "Cat's Meow", written by the Tempest, was approved by Bell Labs as a working blue box, as long as it was used with an Applecat modem. Blich said it was given to him by an associate along with other programs and that he found it entertaining because of the noises it made and educational in that it taught him a little bit about the phone network. He claims never to have used the program to make free phone calls or do anything of a fraudulent nature. The program was not accessible to anyone calling the bulletin board, either. According to the authorities, no illegal calls have ever been traced to Blich and there is no evidence of any illegal activity on his part. In New Jersey, though, under a particular statute, it is illegal to possess virtually anything which can be used to perpetrate fraud.

Blich was told that if he pleaded guilty to the fourth degree misdemeanor which would carry no sentence, his equipment would be returned and all other charges against him would be dropped.

But none of this explains how various law enforcement departments could justify searching his home and seizing his equipment, especially if it was based on the possibility that Blich was undermining the security of the United States by disrupting international telecommunications and infiltrating the Defense Department, when absolutely nothing would point anyone with the intelligence of a stone to this conclusion. More specifically, Prosecutor Alan A. Rockoff stated that one charge was that the "young computerniks...threatened this nation's defense" by stealing information on military tank parts manufactured by a Connecticut defense contractor. Now, after no evidence is found, no complaintants are found, and Prosecutor Rockoff's outlandish headlines have worn away, Blich will be on probation for a year because he had a blue box

program-and all this to cover up for some fools' overzealousness.

Will somebody please wake us up? Can this really be happening? Almost any computer is capable of producing "illegal" tones. Programs that produce such tones are commonplace, to say the least. Many people possess them just for the sake of seeing what they look like and how they work. Are New Jersey authorities now punishing people for being curious?

What if Blich himself had written this program? Are they now telling us it's illegal to *write* certain things, because they could potentially be used in a bad way? Clearly, there's something fundamentally wrong here.

It's easy to say that someone who has a blue box program is only going to use it for illegal activity. But it's simply not true and it's also a very dangerous assumption. If a program on disk can be construed as a burglary tool, then why did the prosecutor send Blich a printout of the four page program? lsn't this distribution of a burglary tool? And what of the programs that appear in the Information Bureau section of this issue? Possession of a gun is one thing, because there aren't all that many things you can do with a gun, unless you're a collector. (Of course, possessing a deadly weapon is legal, but we won't get into that.) With a computer program, however, there are an infinite number of possibilities. Someone could possess it for the sake of having an interesting program, so that they can learn how to make sound effects with their computer, so that they can hear what these magical tones actually sound like, and so on. Yes, there is the *possibility* somebody could use this program for illegal purposes. But it's really just as easy (in fact, much easier) to use a standard touch tone phone to commit fraud these days. How is possession of a touch tone phone any less of a crime than this program? They can both be used for legitimate purposes as well as illegitimate ones. It's not hard to retrace the logic that is used to argue this, but is this logic correct? Or is it potentially a danger to everyone, not just us?

We feel threatened by such actions. How hard would it be to conclude that this magazine itself is a burglary tool? Because we discuss how the various networks work and because we expose the inadequacies and weaknesses, are we not paving the way for criminals? Perhaps we are, but at the same time we're waking up an awful lot of people. People who realize that their secrets aren't safe in a particular computer or people who need to know how their phone system works—we exist for the purpose of education alone. We cannot be held accountable for the potential misbehavior of one of our subscribers—that is an unreasonable expectation.

Fortunately, we're not yet at a stage where such affronts can occur at a magazine. Why? Magazines are tangible, people generally understand them. You can't hold a computer bulletin board in front of you, though. Most people don't understand what a BBS is in the first place. It's so much easier to get away with something if most people don't understand what you're really doing—this is what the authorities have accomplished.

We've made some important progress in this case. We (continued on page 3-8)

The Basics: DIVESTITURE: WHAT HAPPENED?

It's been two years now since they broke up the telephone company, and if you ask around, most people seem to believe it was a bad idea. In the past you received only one phone bill and you never had to worry about *how* to place your calls. It seemed so much simpler then.

For phone phreaks, though, the last two years have meant an increasing number of toys to play with. New pay phones, new long distance companies, new ways of doing what could only be done one way before. While many of us miss the days of that single formidable opponent (Ma Bell), we manage to have fun by figuring out all of the jargonese and being looked upon as the only people who still understand how to make a phone call.

This is meant to be a brief guide to just what has happened because of the divestiture and what the ramifications may be. We're not going to compare rates of the many companies like all of the newspapers are doing and we're not going to complain about how difficult it is to cope with phones these days like all of the columnists are doing. In plain English, we'll simply try and figure out what the hell is going on.

The Way It Used To Be

Let's look at the way things were. Except for some independent local companies, your local phone company was a part of the nationwide Bell System. It all tied together nicely—if you wanted to call long distance, you'd place the call through your local company and they would bill you for it, and that was it. What you most likely didn't know (or care about) was that your local company had hooked into the national company and they in turn had hooked into the local company on the other end. As far as we were all concerned, the local company did it all.

Under this system, things worked fairly well. It was simple for customers, all of the companies benefited (the local companies could keep their rates lower because the national company would pay them and the national company got a monopoly on every long distance call placed), and there were no real problems.

But it wasn't fair. In nearly all countries, the phone company is run by the government and that's it. But here, the phone company was being run by private enterprise, yet there was no competition. It was inevitable that this would be challenged, especially when it started becoming economically feasible for alternative companies to offer similar services.

Signs Of Trouble

In the late sixties, MCI became the first company to challenge the Bell monopoly. Slowly the rules were changing. As the years passed, more companies appeared and began to cry foul. Consumer services were offered for the first time. As technology got bigger, it became obvious that one phone company simply shouldn't do it all. And one day, the government agreed.

First off, the nationwide network had to be dismantled. So it was split into seven parts, none of which are supposed to be related to each other (however, we suspect they still see each other socially). They are: Pacific Telesis, U.S. West, Southwestern Bell, Ameritech, BellSouth, Bell Atlantic, and Nynex. Each of these companies has a fleet of local operating companies under its control, in much the same way as Ma Bell had nearly *all* of the local operating companies under *its* wing in fact these seven new companies have been dubbed "Baby Bells".

But the nationwide network was not completely eliminated, because AT&T still exists. Instead of tying together all of the local companies, AT&T is now just another long distance company, with no connection to any of the local companies or the seven regional companies. Of course, having constructed the network in the first place, AT&T has tremendous

advantages in the long distance market. Equal Access

Clearly, the emerging long distance companies have to be protected against AT&T, so that they can have a fighting chance. If AT&T were to lower its rates, everyone would use them. Because of AT&T's position, it's much easier for them to do this, and re-establish a monopoly. This is prevented by the divestiture agreement, which regulates AT&T more than the other companies. In a weird way, it's kind of like affirmative action.

Another way of protecting the new companies is to give them equal access to the network that AT&T built. What good is it to be allowed to compete for long distance customers if by the time the customer gets to your dial tone, it sounds like it's on another planet? Not to mention the fact that to use your service, the customer has to use a touch tone phone and key in a whole lot of extra numbers to identify himself, since your company isn't able to identify him as soon as he picks up the phone, like AT&T can. In all fairness, shouldn't your dial tone come in as loud and clear as AT&T's?

The answer is of course. But how can this be accomplished? There was no easy way, but it had to be done. And so, "equal access" was developed.

In the early stages, the most that could be done under equal access was to provide a clear connection to an alternate long distance service. In addition, this connection had to be toll-free since quite a few customers were being lost because they had to pay for a phone call to the dial tone of the company they chose, whether or not the call they were making in the first place ever got through. It couldn't be an 800 number because of technical and administrative reasons, not to mention the fact that an extra area code (800) would have to be dialed.

So the 950 exchange was created. This is an exchange which is nearly the same everywhere in the country. It doesn't really exist in any one place; it's a theoretical exchange within local central offices. Calling 950 plus four digits, which are different for each long distance company, connects you with their dial tone—with no ringing and with a very clear connection. For instance, 950-1022 gets you MCI anywhere in the country, 950-1088 gets you Skyline, etc. There are still drawbacks, though. Primitive local companies sometimes insist on charging for these calls, as do some hotels. Then there is also the matter of still having to input your authorization code and being forced to use a touch tone phone. But it represents a start.

The next and most significant step towards achieving equal access was to actually make it possible for somebody to pick up their phone and make a long distance call using whatever company they wanted without dialing any extra numbers. So at last it would be just as simple to make a call using Sprint or Western Union as it was using AT&T. All the customer had to do was tell his local company (when the time came) which long distance company he/she wanted.

This is the point where something interesting began to happen. Phone companies all around the country started to realize that there are a great number of people who really don't care which long distance company offers what—they just want to be left alone. Some of these folks never make long distance calls in the first place and others don't have the time or inclination to try and figure out which company is economically advantageous to them.

But last year a new twist was added. If you don't choose a long distance company, one will be assigned to you at random! In other words, if you close your ears to all of this divestiture talk, you could find yourself subscribing to a company that charges a \$15 monthly minimum, which is a bit of an affront to someone who only makes local calls. Yet, this is what's *(continued on page 3-8)*



AT&T Does It Again

Combined News Sources

Recently, an untold number of residential telephone customers around the country have received letters from AT&T thanking them for choosing AT&T as their primary long distance carrier. The problem is that those customers never selected a carrier, or instead chose an AT&T competitor. One letter was even sent to an MCl executive.

The wave of misdirected AT&T letters is the latest in a series of similar events that have occurred as AT&T and other carriers aggressively attempt to sign up customers through the nationwide "equal access" program.

MCI also has had problems, including telling local phone companies that more than 1,000 customers had chosen MCI in the Boston and New York areas when they did not. And GTE Sprint was fined \$500,000 for starting service for residents who hadn't asked for it.

Meanwhile, in a recent Wall Street Journal/NBC News poll, four out of every 10 Americans say they are confused by the choice of long distance phone carriers. Yet more than half, particularly younger customers, like being able to choose. Nonetheless, most people continue to view the breakup of AT&T as a bad thing.

Five Aliens Hung Up

Combined News Sources

Secret Service agents announced the arrest of five Dominican nationals living in Manhattan in a crackdown on illegal long distance telephone calling fraud.

The individuals were charged with using illegal electronic devices known as "blue boxes" to tap into the telephone network to avoid being billed for long distance calls. They were also charged with placing calls with stolen personal identification numbers and credit card calling numbers of AT&T, New York Telephone, MCl, ITT, and 32 other companies, stealing at least \$1 million in phone calls.

For \$5 to \$20, the suspects would allow neighbors to call relatives in South America. If convicted of telecommunications fraud in connection of accessed services, they face up to 15 years in prison, a \$50,000 fine or twice the amount allegedly taken in the scam.

Technology Nabs Hooky Players

Asbury Park Press

Computerized dialers carrying a recorded message from the principal of every elementary school in Toms River, New Jersey checking on the whereabouts of absent students in the district will be made within one hour after school attendance is taken.

The \$38,000 system utilizes a computer terminal and software package allowing personnel in each of the district's 10 elementary schools to plug in absent students' telephone numbers. The computer then automatically calls the parents where they, or a designated person, can be reached during the early morning school hours.

A recording of the principal's voice is activated by the computer and a record is kept of whether or not the call was answered.

The system has already caught two "hooky players."

Home Computer Attacks Falwell

Associated Press

An Atlanta man angered by a television evangelist took it out



on the Reverend Jerry Falwell by having his home computer call Mr. Falwell's toll-free phone line (8004465000) every 30 seconds for eight months.

Edward Johnson, who stopped the calls in December after Southern Bell threatened to cut off his phone service, said the calls were intended to hurt Mr. Falwell's fund-raising by tying up the phone. [Not to mention the fact that Falwell had to *pay* for all of those calls since they were toll-free, which really means collect!] Mr. Falwell heads Moral Majority.

Another Astronomical Phone Bill

The Hackensack Record

It was a routine morning for Mike Ocejo until he got to his car dealership and found waiting for him a telephone bill—for \$211,165.27.

"They said I called places that I never even heard of before," he said, looking in disbelief at the 1,007-page bill for calls to Pakistan, Malaysia, France, and India, among other countries.

"It must have cost them a fortune just to print out this bill," Ocejo said. He had a hint of something being wrong a few weeks ago when New Jersey Bell officials asked him if he was calling Pakistan.

"I canceled my telephone credit card immediately. I figured somebody found out my credit card number and was calling all over the world."

Dial-A-Porn Update

Communications Week

Carlin Communications, the nation's largest provider of "dial-a-porn" telephone messages, said the company will be forced out of business if new, tough FCC regulations take effect.

The rules would allow dial-a-porn purveyors to operate only if they accept payment exclusively by credit card or require adult callers to use a pre-assigned personal identification code. Otherwise, dial-a-porn operators risk prosecution under the Federal Communications Act and potential fines of \$50,000 a day.

The rules would require an expensive technical reconfiguration of the dial-a-porn industry. Currently, dial-aporn programmers use automated answering equipment. Credit card billing would require the intervention of live operators, reducing privacy and traffic capacity, and raising operating costs. The FCC's only allowable alternative, use of personal 1.D. numbers, requires "interactive" equipment capable of reading the access code a caller punches in on a touch-tone phone. Such equipment can cost five to ten times the cost for "passive" gear typically used with dial-a-porn. In addition, in New York interactive equipment cannot be used on the telephone company's special dial-it network.

Phone Booth Wins Again

Newark Star Ledger

Three men who stole a telephone booth from a service station lot and tried to put it inside a friend's apartment as a practical joke were foiled when the booth wouldn't fit through the doorway, police in Maple Shade, New Jersey said.

A patrolman responding to an anonymous call about three men trying to carry a phone booth into an apartment, found the pranksters replacing the front door.

The three were released on \$2,000 bail each after being charged with the theft.

NOTES FROM YOU

Dear 2600:

A good friend of mine called MCI to get credit for a bad connection and started talking with the operator. At midnight, after a half an hour (it's free after all), he hung up with \$51 credited to his bill. It seems that the operator was bored, new on the job, and grateful for someone to talk to.

I use GTE Sprint for my long distance calls and make it a point to report any noise or crosstalk on the line. (And, as a side benefit, the call is free). After all, if they are going to demand equality with AT&T, they had bloody well better provide equal service! In any case, after about 16 of these calls, the service operator said that her display showed that a majority of my calls were to XXXXXXXXXX which is in the same calling LATA. Therefore, you might wish to reconsider your choice of a long-distance carrier. She continued by saying she was sure that Sprint's rates were not competitive in this instance. Strange-since when I signed up the lady told me that I would save 12% on that exact call. Somebody is lying somewhere! In short, they tried to drop an annoying customer. Since then, they have also pulled stunts like changing my code and not telling me. (I spent two weeks getting them to admit to that!) I think that I'll stay with (and harass) them for another couple of months, then, who knows, it could be MCI's turn!

Dear 2600:

Mutedly, Ford Prefect

I have a question I have often wondered about. If an alternate long distance service must first call the local telco to set up a trace when one of their lines is being abused what would be the case after business hours? I mean, are these lines actually monitored 24 hours a day? Also, I have been scanning a few prefixes in my local area for loops. I have been looking in the NPA-XXX-99XX area. Almost every loop I have seen or read about in files on scanning loops has had them located in this area. I have not had much luck, most have been constant busy signals or ringing and a few residentials. Where else might I look?

Dear Arab:

Arab149

When companies or government agencies have a telephone company arrange a trace, they make the plans in advance. They apply simple if—then situations. "If this code is used, then trace that incoming call, or if this number is dialed, then trace the call to its source." Since all phone systems run 24 hours a day and most of them run automatically, phones can be monitored 24 hours a day. In many cases, it may be better to make a call or use a system during the day, when phone traffic is high. But then again, it is sometimes better to call at night, when less people are available to notice anything fishy.

Your loops may be absent because they have been moved elsewhere, you don't recognize them, or your Central Office is made by a company other than those you are familiar with such as Automatic Electric.

Dear 2600:

I have been listening to the mobile radio-telephone frequencies on my scanner. I was just listening to a company that acquires cars like Ferraris for the very rich. These channels were used before cellular, by the rich, since only they could afford them (scarcity raises prices). In Los Angeles, they are still used by people with lots of money. There are certain tone sequences used to control signaling. I was looking through the latest issue of *Popular Communications* Magazine, and I noticed an ad from a company selling VHF programmable transceivers for \$329. These cover mobile radio-telephone channels as well as things like Los Angeles Police Tactical One dispatch frequency. Has anybody hooked up tone generation equipment to a programmable VHF transceiver and made free calls? It seems that there would be no problem doing this.

I'm an electrical engineering student at the University of Southern California. I just broke into the IBM mainframe the administration uses for grades and stuff. We have these new Zenith-29 terminals on campus, hooked up to Micro-600 port selectors that connect all the DEC and IBM mainframes to the TTY lines. It took me a while to figure this out, but I had to set up the terminal parity to SPACE. The terminals are in VT100 emulation. To get into the grades system, I simply did the following: USC-UCC Micro600 Port Selector, Which system? AD, (CR), ENTER TERMINAL TYPE: VT100, (CR)

This works during normal business hours near lunch time or quitting time. The legit users often don't use a proper logout command, but just turn their terminals off. About 10% of the time, you can connect onto their jobs this way. The IBM makes a mistake and thinks that the line from one of the student terminal rooms is the legit line. One time, they were running donation records for people like alumni, and we looked up the university president's donations. This method will probably work with most IBM mainframes running the MVS operating system, like ours. You can also get in by modem—around noon or 5 pm for best results using 8-bit word, 1 stop bit, and no parity. A question mark at the terminal prompt will list valid types.

Dear 2600:

On the evening of November 16, 1985, the home of Gremlin, a user of Demented Data Systems, was raided by 2 police officers, and two members of the Manitoba Telephone System (MTS) Security Gestapo. They proceeded to take *all* his equipment, *all* his floppy disks, and *all* his printouts. To date, his equipment has not been returned. He was charged with "Theft of Telecommunications over \$200." Apparently, poor Gremlin was using a phreaking program he had written on his Atari 800 to make approximately \$350 in free long distance fone calls. MTS had a tap on Gremlin's fone line for over one month, and was keeping tabs on how much money he didn't spend. When his total came to well over \$200, the MTS Gestapo and the Winnipeg Police Department made their move.

Theft over \$200 is a felony, theft under \$200 is a misdemeanor. I have openly accused MTS of entrapment and still stand adamant in opinion of what really went on.

For instance, if the police uncover a plan to murder the Prime Minister, do they let the conspirators carry out their plans, so they can get them on a full murder charge, instead of just a conspiracy charge? No! They nab the criminals, before the act is carried out.

If the MTS gave Gremlin a warning as soon as he was detected making the fraudulent calls, this mess would never have happened. The MTS big-wigs wanted to make big headlines by nailing a phreaker. This was supposed to scare all the remaining phreaks enough so they refrain from their hobby. It didn't.

Since this, MTS had admitted to letting poor Gremlin get a hefty fone bill before sacking him. He must pay back the fone company for the \$350, and he should be getting back his equipment soon.

The Bad News: since mid November, the Demented Data Systems (DDS) BBS has been constantly watched by MTS Flunkies. MTS admits that nothing on the board is truly illegal, much like the Private Sector, but would like to keep tabs on the board. They caused a big hassle when it was discovered that DDS has the entire inner workings of the MTS Envoy 100 mailing system in detail on the board. I have offered many times to give them FREE, FULL SYSTEM ACCESS, with no results.

Anyhow, that's how it is up here.

The Grub, Canada

The Creature

Dear Readers:

The Grub also sent an article from a local paper that described the bust. It mentioned another person who was arrested for making \$150 in calls. It also mentioned an underground program called "Silver Bells" which sends 2600 hertz and is presumably a blue box program.

Demented Data Systems can be reached at 2048325397 at 300 and 1200 baud, and is free for long distance callers.

The 2600 Information Bureau

TEXAS INSTRUMENT 99/4(A):

FROM BASIC: 0: CALL SOUND(100,1300,0,1500,0)

1: CALL SOUND (100,700,0,900,0) 2: CALL SOUND (100,700,0,1100,0) 3: CALL SOUND (100,700,0,1100,0) 4: CALL SOUND (100,700,0,1300,0) 5: CALL SOUND (100,700,0,1300,0) 6: CALL SOUND (100,1100,0,1300,0) 7: CALL SOUND (100,700,0,1500,0) 8: CALL SOUND (100,700,0,1500,0) 9: CALL SOUND (100,1100,0,1500,0) 7: CALL SOUND (100,1100,0,1700,0) KP: CALL SOUND (100,1100,0,1700,0) 11: CALL SOUND (100,700,0,1700,0) 12: CALL SOUND (100,700,0,1700,0) 5T: CALL SOUND (100,1500,0,1700,0)

2600

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COMMODORE 64:

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5 S=54272
6 DIM B(7),A(7)
10 FOR LS=S TO S+24:POKE LS, 0:NEXT
20 POKE S+5,64:POKE S+6,100
25 POKE S+12,64:POKE S+13,100
30 POKE S+24.15
40 FOR T=1 TO 7
50 READ A(T), B(T)
60 NEXT T
70 PRINT "USE 1-0 FOR DIGITS 1-0"
80 PRINT "USE K FOR KP : USE S FOR ST"
88 PRINT "USE + FOR 11 : USE - FOR 12"
90 PRINT "USE L FOR KP2"
95 PRINT "PRESS SPACE BAR FOR 2600 HZ"
100 PRINT "PRESS THE APPROPRIATE KEY AND
   THE TONE WILL BE EMITTED FROM THE TV"
110 GET A$: IF A$="" THEN 110
120 IF A$="S" THEN T=5:U=6
125 IF A$="L" THEN T=4:U=6
130 IF
      A$="K" THEN T=3:U=6
140 IF
       A$="+"
              THEN T=2:U=6
       A$="−"
150 IF
              THEN T=1:U=6
152 IF
       A$="1"
              THEN T=1:U=2
154 IF
       A$="2" THEN T=1:U=3
156 IF
      A$="3" THEN T=2:U=3
158 IF A$="4" THEN T=1:U=4
      A$="5" THEN T=2:U=4
160 IF
      A$="6"
              THEN T=3:U=4
162 IF
      A$="7" THEN T=1:U=5
163 IF
       A$="8" THEN T=2:U=5
164 IF
166 IF A#="9" THEN T=3:U=5
168 IF A$="0" THEN T=4:U=5
169 IF A$=" " THEN T=7:U=7
170 POKE S+1, A(T): POKE S, B(U)
175 POKE S+8, A(T): POKE S+7, B(U)
180 POKE S+4,17:POKE S+11,17
190 GET Z$: IF Z$="" THEN 190
200 POKE S+4,16:POKE S+11,16
210 GOTO 110
500 DATA 44,0,57,0,70,0,83,0,96,0,108,
   0,166,0
510 REM THE ABOVE DATA STATEMENT MAY
  HAVE TO BE ADJUSTED TO GET
   THE EXACT TONE.
```



ATARI:

```
1 POKE 82,0:POKE 755,0
2 OPEN #1,4,0,"K:"
50 PRINT "ATARI BLUE BOX PROGRAM"
51 PRINT "D-9 = MF O-9"
52 PRINT "K=KEYPULSE"
53 PRINT "S = START"
54 PRINT "SPACE BAR = 2600 HZ ON/OFF"
55 PRINT "You must press the space bar twice"
56 PRINT "for the program to work correctly."
60 REM
140 DIM N$(1)
144 GET #1.N
145 N$=""
146 LET N$=CHR$(N);? N$;" ";
150 IF N$=" " THEN ? "2600Hz ";:GOSUB 290
160 FOR LOOP=1 TO LEN(N$)
170 IF LEN(N$)=0 THEN GOTO 500
190 CHAR=ASC(N$(LOOP,LOOP))-ASC("0"):TRAP 200:
   RESTORE 360+CHAR$10:GOTO 220
200 IF N$ (LOOP, LOOP) = "K" THEN RESTORE 460: GOTO 220
210 IF N$ (LOOP, LOOP) ="S" THEN RESTORE 470: GOTO 220
215 CLR: GOTO 60
220 READ A, B, C, D
230 POKE 53760, A: POKE 53762, B: POKE 53764, C: POKE 53766, D
240 POKE 53767,168:POKE 53763,168
250 FOR A=1 TO 15; NEXT A
260 POKE 53767,160:POKE 53763,160
270 NEXT LOOP
280 CLR: GOTO 60
290 SOUND 0,0,0,0:POKE 53768,120
300 POKE 53760,81:POKE 53762,1:POKE 53764,0:POKE 53766,0
310 POKE 53767,168:POKE 53763,168
320 GET #1,N: IF N<>32 THEN 320
330 POKE 53767,160:POKE 53763,160
340 N$=""
350 RETURN
360 DATA 165,2,80,2
370 DATA 240,4,210,3
380 DATA 240,4,40,3
390 DATA 210,3,40,3
400 DATA 240,4,165,2
410 DATA 210,3,165,2
420 DATA 40,3,165,2
430 DATA 240,4,80,2
440 DATA 210,3,80,2
450 DATA 40,3,80,2
460 DATA 40,3,8,2
470 DATA 80,2,8,2
480 FOR A=1 TO 700:NEXT A
490 NEXT LOOP
500 CLR: GOTO 60
510 REM --- BY: DEVIOUS XEVIOUS ----
```

```
Programs sent in by Ford Prefect, thanks.
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SYSTEMATICALLY SPEAKING

New Payphones Confuse Callers

Wall Street Journal

Telephones that read credit cards may be the wave of the future. But you wouldn't know it from watching callers at La Guardia Airport for two hours recently.

While dozens of callers dial on conventional telephones, only six people approach the five card-reading phones nearby. Two glance at the lengthy instructions and walk off in obvious disgust. Four others, businessmen with AT&T credit cards, use the telephones—but punch in their account numbers manually rather than using their magnetically coded cards for automatic recording.

The problem seems to center on the design of the new phone machines: Unlike most automated-teller machines used by banks—where a motor-driven device whisks the card away and then returns it to the customer—the phone machines require the customer to position the card's magnetic strip correctly, slide the card manually through the slot, and then remove it. The procedure seems to intimidate customers. "People don't interact with the magnetic strip on their credit cards in daily usage," one expert said.

While the card should be inserted lengthwise along the edge nearest the magnetic strip, "everyone tries to put it endways," says Ray Ruiz, a product manager for Pacific Bell, which first installed credit-card phones in 1984. For the first month, he says, cards inserted the wrong way would get lost in the machine, and a metal barrier had to be installed behind the slot to keep the cards from being inserted too far. But he has yet to devise a way to prevent callers from putting coins in the credit card slot.

Security Software

Communications Week

American Telemanagement Corporation is marketing computer software aimed at preventing theft of service from long distance companies by people using stolen codes.

The company's software, called Network Security Management, combats theft by detecting when codes are being stolen and monitoring the use of codes to immediately identify excessive use. Three carriers have already purchased licenses to use the program: SBS Skyline, Teltec Savings Communications, and Microtel. Several others are testing the program.

Your Own Private Centrex

2600 News Service

Pacific Bell is offering a new service called "Premiere" where with a touch-tone phone one can make an amazing amount of services available in your own home—enough services so that you could impress your friends by telling them that you have your own private switching system. With Premiere you can call any other line within your home by pushing two tones; you can make any phone a multi-line phone and answer any line in any room; you can transfer calls within a home from one line to another; you get call hold, 3-way calling, call forwarding; you get something called alternate answering, where one line will ring if the other is busy; you can store up to 30 numbers that you can call up by hitting 2 tones; distinctive ringing, where external (outside the home) and internal rings will actually sound different. These services are available for \$3.50 to \$5 per month per each service you request, so this adds up to quite a bit of money for the full services. The only requirement is a 1A ESS.

New VAX Announced

Combined News Sources

The Digital Equipment Corporation, the world's secondlargest computer maker, announced a new top-of-the-line supermini-computer capable of processing between six and seven million instructions per second.

The new machine, called a VAX 8650, was described by Digital officials as the company's first extension of the VAX 8600 line. The 8650 runs about 44 percent faster and will have an internal memory that is twice as big, about 68 megabytes.

DEC is also introducing a PC compatible that will be also compatible with DEC's Rainbow PC.

Cray Maneuvers

Communications Week

AT&T Bell Labs has sold an aging Cray-I supercomputer in order to purchase a sleek, new Cray X-MP/24 supercomputer. The new system is valued at about \$10 million and will be installed early this year. An AT&T Bell Labs spokesman said the unit will be the company's only Cray computer. He said the X-MP/24 will be used at Murray Hill in AT&T microprocessor chip development and in Unix operating system research and development.

Overcharge Hunters Needed

Associated Press

New jobs are opening up for individuals who can ferret out overcharges in phone bills that can exceed hundreds of thousands of dollars. "It's basically a record keeping failure," one of the detectives, James Bell, East Coast manager for Sears Communications Co. said of the telephone errors. With so many levels of telephone bureaucracy to go through before a customer's order is carried out, the request sometimes is not transmitted accurately.

Some of the consultants take 50 percent of the overcharges they find. Such investigators have spent months looking over bills for large companies and municipalities. Ronal Chernow Communication Services Inc. saved New Jersey's Essex County \$218,000 for the telephone system in their court complex. Chenow recalled a case in which a New York company moved to New Jersey and paid a so-called mileage charge for keeping its old number. But the company still was being billed for a switchboard that no longer existed. The telephone company wanted to send an employee to verify that the equipment was not there, but the building had been replaced with a parking lot.

Phone Service Via Radio Shack

Communications Week

Radio Shack has signed an agreement with Nevada Bell to run a test program that allows customers to sign up for immediate telephone service at Radio Shack stores in the Reno/Sparks area of Nevada. The cooperative program allows customers to buy a phone from Radio Shack, open an account with Nevada Bell and receive a phone number on the spot.

The stores are connected to Nevada Bell via hot lines, and the program is in operation any time the stores are open, not just normal business hours.

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currently being done.

It's true you will be writing more than one check when it comes time to pay the phone bill. Many long distance companies still don't go through your local phone company's billing office like AT&T used to (and still does), so they must bill you separately. Then, you could choose to make some calls with one long distance company and others with another. Then again, you could make calls using Visa or American Express and get billed *that* way. There are so many different ways to make a telephone call these days, so naturally there will be at least as many ways to be billed. You could also wind up paying AT&T for equipment rental, if you're wary of owning your own phone equipment. So that's another check to write.

Then there are pay phones, which are starting to be deregulated. You may see two totally different phones that charge totally different rates to call the same place. This will be confusing to most people, because they were never trained to *think* about the phones they use. But for phone phreaks, this represents more ways to have fun.

What The Future Holds

In theory, what we have today is the beginning of total equality. Unfortunately, it's also total mayhem, but that will undoubtedly clear up in time, as everyone slowly gets used to the new system. Many mistakes are being made and it's fun to find them. Skyline has a page in their bill that says, "Retain for your records," in much the same fashion as other telephone bills. The difference here is that there is no information on this page at all except your name and the month of the bill. The amount owed appears on another page. Why would someone want to retain this useless data? Then there's U.S. Tel, who supposedly has a new credit card system—you dial a number, then enter your credit card number, which is something like 14 digits long. Miraculously enough, we've been told, any series of numbers at all allows the call to go through!

But mistakes aren't the only thing we'll be seeing. Since Bell Labs is now able to compete openly, we'll see a great number of the projects they've been working on secretly for Ma Bell. This will be of great benefit to us. At the same time, it may get a lot harder for authorities and spies to keep tabs on certain people, since there's no longer a guarantee that a person will use a certain phone or even a certain network. Diversity is good for the individual.

All of this is only the beginning. Many more changes are on the horizon and technological enthusiasts will have quite a time. For the average person who doesn't care, things may be unpleasant, especially if the explanations aren't as plentiful as the changes. Hopefully though, these folks will be comforted by the knowledge that it's all *fair*.

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Private Sector

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succeeded in getting the prosecutors to reveal their true knowledge of the matter in front of the entire world. And we convinced the American Civil Liberties Union to take up the case of the Private Sector. We expect them to be involved in similar cases in the future. Slowly but surely, we're getting through to people.

We hope to see this kind of thing stop once and for all. Too many innocent people have already been victimized by these little-publicized gestapo tactics. Sensitive equipment has been damaged by careless law enforcement agents. Valuable time has been lost, voices have been silenced, and people's lives have been adversely affected. Please, folks, wake up those around you *now!* That's our brightest hope.

We apologize about having to devote yet another article to this distressing subject. Until we see some basic changes in attitude and evidence of real protection for all of us, we must continue to speak out. We hope you do the same, in whatever ways possible.

Good News

The good news is that at last the Private Sector is returning. At press time, the estimate for having the board up and running is sometime in February. (Extra time is needed to look for any damage and also to see if any "back doors" have been installed while we weren't looking.) The number for the Private Sector is still 2013664431.

In the interim and as a supplement, 2600 will operate a limited access subscriber bulletin board from our New York office. All subscribers are welcome to call and participate in discussions with other readers on topics such as this. There will also be a facility for uploading articles to us, using XMODEM or ASCII transfer methods. This board will be run on an experimental basis and *only* between the hours of midnight and noon on Saturday and Sunday mornings (also known as Friday and Saturday nights), Eastern Time.

To get onto this board, call 5167512600 between these times. Leave your subscriber code (those funny letters and numbers on the upper right of your mailing label) or your name as it appears on our mailing list, along with a first and last name of your choice and a random password. These will be installed in time for the next day of activity. Don't worry about personal information leaking out—we only need to see it once to verify that you're a subscriber and then it will be destroyed.

If you call that number at any other time, you'll either get a human or a machine. If you reach the machine, leave a message so that we can pick up for real if we're within earshot, which is more often than you might think.

We're also planning to have meetings in various cities throughout 1986. If you think a particular city is well-suited for this, let us know and we will take it into account.

We have a lot of fine articles just waiting to be printed and we're always looking for more. Feel free to send us *anything* of interest.

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