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July 27, 1995



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CTIA

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Cellular
Telecommunications
Industry Association
1250 Connecticut
Avenue, N.W.
Suite 200
Washington, D.C. 20036
202-785-0081 Telephone
202-785-0721 Fax

Mr. William F. Caton
Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, DC 20554

Re: *Ex Parte* Presentation
CC Docket No. 92-115

Dear Mr. Caton:

On Thursday, July 27, 1995, the Cellular Telecommunications Industry Association ("CTIA") met with FCC staff to discuss issues raised on reconsideration of Section 22.919 of the FCC's Rules. Attached is a list of individuals who attended the meeting.

At the meeting, CTIA presented the attached documents. Pursuant to Section 1.1206(a)(1) of the Commission's Rules, an original and one copy of this letter and attachment are being filed with your office. If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Andrea Williams
Staff Counsel

Attachments

No. of Copies rec'd
List ABCDE

0+2



FCC Wireless Telecommunications Bureau

Ms. Rosalind Allen
Mr. John Berresford
Ms. Barbara Esbin
Mr. Jay Jackson
Ms. Regina Keeney
Mr. Steve Markendorf
Ms. Sally Novak
Mr. Daniel Phythyon

U.S. Department of Justice - Antitrust Division

Mr. Brent Marshall

CTIA

Michael Altshul - CTIA
Mr. Tom McClure -CTIA
Andrea Williams - CTIA
Ms. Roseanna DeMaria - McCaw
Ms. Cathy Massey - McCaw
Mr. Les Owens - GTE Laboratories

Telecommunications Industry Association

Allan Angus - JRCI
James Caile - Motorola
Roberta Garden - TIA
William Osborn - Ericsson
Grier Raclin - Gardner, Carlton & Douglas
Paul Schomburg - Mitsubishi Electric Corp. of America

Independent Cellular Service Association

Ron Foster
Kristen Heavener - MT Communications
Mike Heavener - MT Communications

C2 Plus

Tim Fitzgibbon - Carter, Ledyard & Milburn
Richard Levine - Beta Scientific Laboratory
Carol Pation - C2 Plus

CTIA



Building The Wireless Future™

**Combating Wireless Fraud: Maintaining the Integrity
of Factory-Set Electronic Serial Numbers**

***Ex Parte* Presentation
CC Docket No. 92-115
July 27, 1995**

THE "EMULATION" OF ELECTRONIC SERIAL NUMBERS = CLONING

- **The Electronic Serial Number (ESN) is a unique number assigned to a cellular phone by the manufacturer. Section 22.919 of the FCC's rules requires the ESN to be fixed and unchangeable, thus establishing a unique fingerprint for each phone. The cellular industry relies on ESN/MIN (Mobile Identification Number) pairs to validate its legitimate customers.**
- **Cloning refers to a method by which the original, factory-set ESN of a cellular phone has been altered, transferred, removed, or modified then reprogrammed into another cellular phone.**
- **Cloning fraud, the most prevalent type of cellular fraud, requires the ability to obtain valid ESN/MIN pairs, erasing the existing ESN from a cellular telephone and replacing it with a copied or cloned ESN. Once stolen ESN/MIN pairs are entered into cellular phones, the cloned telephone is able to gain unlawful access to cellular service. *See Exhibit 1.***
- **Cloned telephones are used not only to obtain free cellular service, but also to conduct criminal activity such as narcotic and drug trafficking.**
- **The type of ESN alteration/modification used and advocated by C Two Plus Technology and its affiliates cannot be distinguished from any other cloning of cellular telephones. *See Exhibit 2.***

THE FCC'S POLICY AND RULES GOVERNING THE ALTERATION OF THE ESN

Since 1991, the Commission has clearly stated its policy and rules governing the alteration or modification of the original, factory-set ESNs in cellular telephones.

“Phones with altered ESNs do not comply with the Commission’s rules and any individual or company operating such phones or performing such alterations is in violation of...the Commission’s rules.” *FCC Public Notice, Report No. CL-92-3, October 2, 1991.*

“It is a violation of ...the Commission’s Rules for an individual or company to alter or copy the ESN of a cellular telephone so that the telephone emulates the ESN of any other cellular telephone. Moreover, it is a violation of the Commission’s Rules to operate a cellular telephone that contains an altered or copied ESN.” *Letter of Clarification from Mr. John Cimko, Chief, FCC’s Mobile Services Division, to Mr. Michael Altschul, dated January 15, 1993, concerning modification of ESNs by the NAM Emulation Programming Device manufactured and distributed by C Two Plus Technology.*

“Alteration of an ESN can interfere with a cellular carrier’s effort to bill and collect for the use of its facilities. There is evidence suggesting that mobile phones with modified or cloned ESNs are used in a majority of cases involving cellular fraud....phones with altered ESNs do not comply with the Commission’s rules....” *Letter of Clarification from Mr. John Cimko, Chief, FCC’s Mobile Services Division, to the Honorable Jim Sasser, U. S. Senator, dated June 21, 1994, concerning a constituent’s desire to have the same telephone number for each of his cellular telephones.*

“Any individual or company that knowingly alters cellular telephones to cause them to transmit an ESN other than the one originally installed by the manufacturer is aiding in the violation of...[the Commission’s] rules. Thus, we advise all cellular licensees and subscribers that the use of the C2+ altered cellular telephones constitutes a violation of the Act and our rules.” *Part 22 Report and Order, 9 FCC Rcd 6513 (1994).*

While the FCC has clearly stated that emulation of ESNs violates the FCC’s rules, a press release issued by a C Two Plus affiliate continues to ignore the ESN security rule by stating that the FCC’s *Part 22 Report and Order* is an advisory opinion and “is not legally binding.” See Exhibit 3.

FEDERAL COURTS ARE ENFORCING THE FCC'S ESN SECURITY RULE

Several U.S. District Courts have issued permanent injunctions, temporary restraining orders, or consent orders prohibiting C Two Plus affiliates and other cloners from altering, transferring, or manipulating the electronic serial numbers of cellular telephones.¹ The Courts clearly state that the emulation of ESNs violates the FCC's rules.

¹ *See* accompanying appendices which include the decisions rendered by six U.S. District Courts that have ruled on this matter, *i.e.*, **the U.S. District Courts in the Southern District of Texas, the Eastern District of Missouri, the Southern District of New York, the Eastern District of New York; the Southern District of Mississippi, and the U.S. District Court of Minnesota (Third Division).** A request for declaratory judgment and injunctive relief is also pending before the **U.S. District Court for the Northern District of Alabama.**

THE CELLULAR LICENSEE'S RESPONSIBILITY FOR ADDITIONAL MOBILE UNITS

- **Part 68 of the Commission's rules sets forth the customer-carrier relationship for the connection of additional phones to wired service. Under Part 68, it is the customer, not the wireline carrier, that assumes responsibility for the connection of additional phones on the customer's premises.**
- **The FCC, however, has prescribed a very different customer-carrier relationship for cellular service. The FCC holds the cellular licensee, not the customer, responsible for effective operational control over all mobile stations, *i.e.*, cellular mobile units, that communicate with the cellular licensee's base station. *See* 47 CFR § 22.912.**
- **With cloned phones, it is impossible for the cellular licensee to comply with this Rule.**
 - **The licensee does not control the alteration or manipulation of the ESN.**
 - **The licensee cannot track or bill the cloned phone.**
 - **Cloned phones which are not controlled or authorized by the carriers do not fall within the carrier's blanket license. Therefore, such phones are unauthorized transmitters and violates Section 301 of the Communications Act.**
 - **Because the licensee does not control the cloned phone, the licensee also cannot ensure that the operation of a cloned phone does not interfere with legitimate customers' access to cellular service.**
- **Carriers are increasingly deploying anti-fraud features such as radio fingerprinting and velocity checking to combat cellular fraud. With the deployment of such features, a cloned phone can be detected and removed from the system before the user accesses the system. Thus, cloned phones customers will be denied access or removed from the system, regardless of their intended use of the phone. *See* Exhibit 2.**

RESPONDING TO CUSTOMER DEMAND WHILE PROTECTING AGAINST CELLULAR FRAUD

- **In response to consumers' desire to have two phones with the same phone number, cellular carriers have begun deploying switch-based technology which will "look for" or page several phones with the same MIN.**
- **Unlike cloned phones, each phone has a distinct, factory-set ESN.**
- **Unlike cloned phones, the switch-based technology allows cellular systems to authenticate or validate legitimate mobile units.**

PETITIONERS SEEK RECONSIDERATION OF SECTION 22.919

- **In the *Part 22 Report and Order*, the FCC stated that Section 22.915, which governs cellular specification compatibility, has been retained and renumbered Section 22.933. See *Part 22 Report and Order*, 9 FCC Rcd at 6526, n. 108 (1994).**
- **While C Two Plus Technology refers to Section 22.915 in its reply to *TIA/CTIA Joint Reply to Petitions for Reconsideration*, it does so in the context of cellular specification compatibility, not ESN security.**
- **Section 22.919 which governs ESN security, not the cellular specification compatibility under the former Section 22.915, is at issue on reconsideration of the *Part 22 Report and Order*.**

CONCLUSION

- **The FCC and Federal Courts have clearly stated that the “emulation” of ESNs violates the FCC’s Rule governing ESN security.**
- **The type of alteration or modification of ESNs advocated and used by C Two Plus Technology to provide “extension” service is pure and simple cloning.**
- **To allow such cloning would not only violate the FCC’s rules but also undermine the FCC’s policy and recent enforcement efforts to combat cellular fraud.**
- **The FCC’s Rule governing ESN security provides the industry with an effective tool to combat cellular fraud. Abolishing the Rule would only abrogate the industry’s ability to protect itself against fraud.**

EXHIBITS

1. **Miller, *Web of Cellular Phone Fraud Widens*, N.Y. Times, July 20, 1995, at C1.**
2. **Affidavit of Garry A. Sutcliffe, Manager of Technical Support and Investigation, Bell Atlantic NYNEX Mobile**
3. ***Business Wire*, Dow Jones and Company, Charlotte, North Carolina (April 6, 1995).**
4. ***In the Matter of Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services*, CC Docket No. 92-115, *Report and Order*, 9 FCC Rcd 6513, 6525-6526 (1994).**
5. ***Letter of Clarification from Mr. John Cimko, Chief, FCC's Mobile Services Division, to the Honorable Jim Sasser, U. S. Senator*, dated June 21, 1994, concerning a constituent's desire to have the same telephone number for each of his cellular telephones.**
6. ***Letter of Clarification from Mr. John Cimko, Chief, FCC's Mobile Services Division, to Mr. Michael Altschul*, dated January 15, 1993, concerning modification of ESNs by the NAM Emulation Programming Device manufactured and distributed by C Two Plus Technology.**
7. ***Letter from Mr. Michael Altschul, Vice President and General Counsel for CTIA, to Ms. Renee Licht, FCC's Acting General Counsel*, dated November 4, 1992, requesting FCC's written concurrence that cellular phones containing ESNs modified by the NEPD do not conform to Part 22 Rules.**
8. ***FCC Public Notice, Report No. CL-92-3, October 2, 1991.***

Home

CONSUMER'S WORLD

Web of Cellular Phone Fraud Widens

By BRYAN MILLER

HENRY DUQUETTE, who operates a limousine service in the Hudson Valley town of Pleasant Valley, N.Y., was delighted with the cellular telephone that he bought for his car earlier this year. No more searching for phone booths. No more scrambling for change.

Then the March bill arrived.

"It was \$5,000!" he recalled, his voice jumping an octave at the memory. "There were pages

and pages of phone calls all over the place."

Like thousands of other cellular phone users across the country, Mr. Duquette's number had been "cloned," meaning that his cellular phone's identification numbers had been illegally copied. Once largely confined to New York City, Los Angeles and Miami, cellular phone cloning is spreading rapidly in smaller cities and rural areas, confounding law enforcement efforts to curtail it.

Although technological advances and enhanced law enforcement have slowed or stopped the growth of cellular fraud in some areas, these

efforts are being overwhelmed, the industry says, as criminals take their business to Detroit, Chicago, Columbus, Dallas, Seattle and other previously unaffected cities. In fact, before this year, cellular phone fraud was all but unheard of in Columbus, Dayton and Cincinnati.

"The cases have increased by 100 percent," said Christopher Carpenter, assistant manager for loss prevention at Ameritech Cellular.

According to industry statistics, 25 million Americans now use cellular phones and subscribers are growing by 28,000 every day. Fraud

Continued on Page C2

Web of Cellular Phone Fraud Widens

Continued From Page C1

victims are not responsible for the counterfeit calls, estimated to have cost the industry more than \$1 million a day last year and heading toward half a billion dollars for this year. Although the cost of fraud is reflected in consumer prices, Mike Houghton, a spokesman for the Cellular Telecommunication Industry Association in Washington, said it was difficult to say how much fraud inflates phone bills.

A spokesman for the mobile phone company that Mr. Duquette uses, the United States Cellular Corporation, in Poughkeepsie, N.Y., explained that electronic bandits had aimed a cellular telephone scanner at his car, probably when he was at one of the New York City airports, and picked up his electronic serial number and mobile identification number. Using ordinary computers and special software, the thieves transferred the numbers to other cellular phones.

"In the last three months we have been getting reports of fraud in Ulster County, N.Y.," said Christine Maietta, the fraud prevention representative for United States Cellular. "We're getting about 10 to 12 customers coming in a month, including two of our employees."

Phone cloners typically set up operations at spots with high traffic volume and aim the scanner at cars. Cellular phones emit a radio signal every 15 minutes that identifies them to transmitters. Picking up numbers, authorities say, can be as easy as fly fishing in a trout hatchery.

According to law enforcement authorities, illegal cellular phones are frequently used by drug dealers who desire untraceable calling. Cellular phones can be tapped, but it is more difficult when phones and numbers are changing constantly.

"These people are not looking for free phone service," said Roseanna DeMaria, formerly a narcotics specialist with the United States Attorney for the Southern District of New York, who now works for Cellular One.

Sometimes the counterfeit phones are rented or sold to those who seek free, unlimited calling — that is, until the cellular company catches on and cancels the account, a process that usually takes two to six weeks. (The typical sale price is \$100 to \$200.)

"These people even offer a one-month guarantee with the phones,"

said Robin Traum, a spokeswoman for Cellular One. "If your phone gets shut down, you go back and they program it with another number."

The major inconvenience to legitimate phone users is having to return to their cellular company to have their phone reprogrammed.

That is what Mr. Duquette did in Poughkeepsie.

"Then my next bill was \$6,700," he recalled with a laugh. "At least it wasn't such a big shock this time."

Ken Backofen of Kingston, N.Y., has been cloned twice in the last year, for a total of \$6,200.

"I'm pretty sure they got me the last time at the G.W. Bridge," he said. "I tried to be my own detective by calling some of the numbers on my bill, but it went nowhere."

In New York the most vulnerable locations are the George Washington Bridge, the F.D.R. Drive and the airports. In Los Angeles last year, police arrested a man who was sitting on the sidewalk, apparently homeless, holding a cardboard sign asking for money. Behind his sign was a \$2,000 scanner.

"We shut down one operation in the Bronx with 300 phones that they were renting out to people from a storefront," said Brian F. Gimlett, a special agent for the Secret Service in the New York region. In February, an Electronic Crimes Task Force was formed combining state and Federal law enforcement agents. More than 100 arrests have been made, and two dozen cloning operations have been shut down. Agents like Mr. Gimlett concede, however, that the problem may be growing faster than the effort to counter it.

"I don't think you will ever shut it down," he said. "It's like credit card fraud in the 1980's. For a while it was a major problem. Then with techno-

logical advances most of it was cut out. But it still exists."

Not surprisingly, the cellular phone industry is spearheading a nationwide antifraud campaign that involves legislative initiatives, law enforcement and education.

Cellular phone use, which blossomed in the late 1980's, first became the focus of fraud in 1991, when organized drug importers saw it as a way to communicate without leaving paper records. The industry soon formed a fraud task force that has become increasingly aggressive in coordinating countertechnology and law enforcement efforts. In 1993, for example, New York State passed a bill changing cellular counterfeiting from a misdemeanor to a felony. Last year, Congress made such activities a Federal crime subject to 15 years in prison and a \$250,000 fine.

Florida has made illicit possession of a scanner a crime. Similar bills have been proposed in Oregon, Texas, Minnesota, Utah, Pennsylvania and Washington. Councilman John Sabini of New York City's 25th District, near La Guardia Airport, which he calls "the cloning capital of the world," is drafting a bill that would strengthen penalties for cellular phone fraud.

"They caught one guy who set up his scanning equipment at the Days Inn, and he was off on the golf course or something while it was working!" Mr. Sabini said.

To make matters worse for cellular phone companies, some otherwise honest people are faking phone cloning in order to avoid paying their legitimate bills.

"This cloning is the best thing that ever happened to me," said a limousine driver on Long Island, who declined to be identified. "Every four or five months, if I use the car phone

a lot, I start making dozens of calls to random numbers. The company invalidates the bill, and I don't have to pay anything!"

If cellular phone fraud is to be seriously curtailed, the industry says, it will come from technology as much as police work. Already companies like Cellular One, a franchise operation, is offering secret personal identification numbers that must be used to activate a phone. Only the user and the phone company have the number. L.A. Cellular, another clone-plagued company, offers customers a similar code, as does Southwestern Bell, which earlier this year lost \$3 million in one day through illegal calls. While they require extra effort and memory on the part of users, so far these codes have been highly effective.

"But the criminal element can be very determined and very sophisticated," said Ms. Traum of Cellular One. "Eventually they will find a way around it."

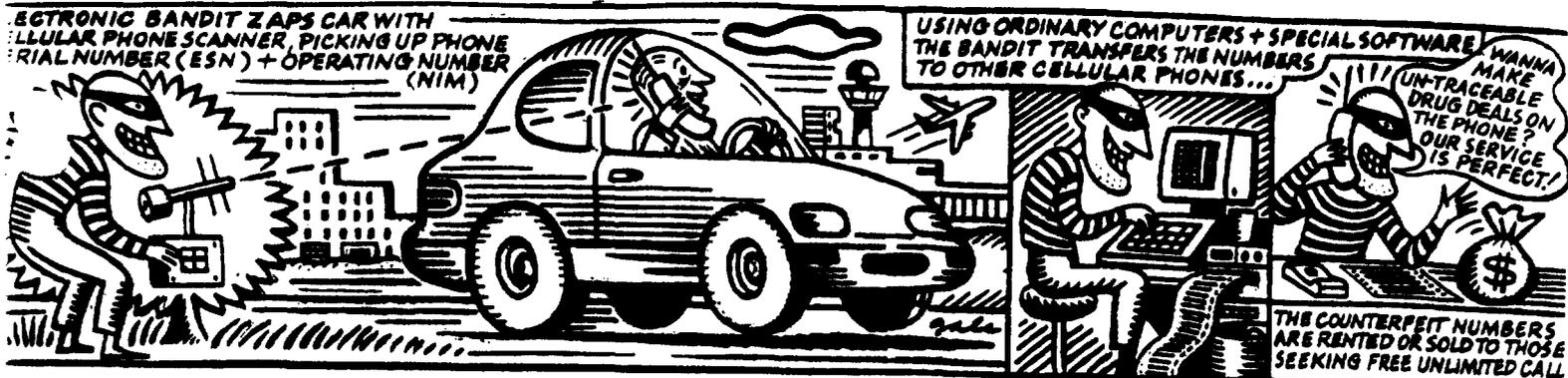
For example, Nynex now pro-

How some get telephone bills for \$5,000.

grams most of its cellular phones so they cannot make international calls, a common forum for fraud. Recently a man devised a routine in which he called a friend in Columbus, Ohio, who in turn made conference calls to Pakistan and Kuwait. The man in New York sold the calling time from a storefront.

Another fraud detection system involves tracking calling patterns of customers so that when, say, 17 successive calls to Bogotá are detected, the system shuts down automatically and the customer is notified. The industry is testing a "radio fingerprinting" that would help secure legitimate telephones.

"This is a high-tech war against high-tech crooks," said Mr. Houghton of the Cellular Telecommunications Industry Association. "We just hope to stay one step ahead of them."



Bob G

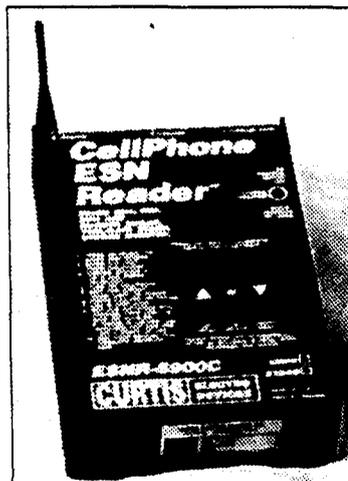
How the Thieves Operate

PICKING off identification numbers from cellular phones — especially those without special antifraud devices — is exasperatingly easy, law enforcement officials say. Cellular bandits use electronic scanners, the same machines that cellular phone companies use for legitimate reasons: to install identification numbers in new telephones.

Until recently, anyone could buy one of these 800-megahertz scanners through industry catalogues or from distributors. Today, cities like New York and Los Angeles are considering laws to make illicit ownership of scanners a crime. Scanners are no longer available in retail electronic stores. In Florida, where such a law was enacted last year, the price of an illegal scanner jumped from \$1,500 to about \$3,000. Such scanners go for about \$2,000 in New York City, according to the police.

Thieves can set up anywhere there is significant traffic. Every time a cellular phone starts a call, it transmits its identification numbers — digits that scanners can pick up. Telephones also broadcast these numbers every 15 minutes so cellular companies can track them for call routing.

Some people with scanners sit in their cars nearby and aim them at traffic; others have ancillary antennae that allow them to work from a mile or more away.



Cellular One

A scanner that can illegally copy cellular-phone identification numbers.

Yet others set them up in buildings some distance from roads or airports and hook them directly to a printer. They can go away for hours and come back to pick up the printed numbers.

Thieves need more than numbers to clone a phone. They also need a computer and special software that transfers the stolen numbers to a microchip on a new telephone. The computer costs about \$2,000; the software can be pirated.

BRYAN MILLER

**Bell Atlantic NYNEX Mobile
FRAUD / Prevention and Control**

Affidavit of Garry A. Sutcliffe

KNOW ALL MEN BY THESE PRESENTS:

BEFORE ME, the undersigned authority, personally appeared Mr. Garry A. Sutcliffe, who after being duly sworn, did state under oath as follows:

"My name is Garry Sutcliffe. I am over the age of eighteen(18) and I am fully competent to make this affidavit in all respects. The facts and opinions contained herein are true, correct and based upon my personal knowledge.

I am a Manager of Technical Support and Investigation at Bell Atlantic NYNEX Mobile, which is located at 2000 Corporate Drive, Orangeburg, New York. I am very familiar with the technical aspects of the cellular business, including the process known as 'ESN emulation'. In the cellular business, an Electronic Serial Number (ESN) is the manufacturers (factory) installed 32 bit binary number that uniquely identifies the cellular telephone to the cellular system. This is similar to a motor vehicles, vehicle identification number (VIN) which uniquely identifies the vehicle. ESNs enable cellular licensees, like Bell Atlantic NYNEX Mobile, to identify the transmissions of each cellular telephone, authorize system usage and bill properly for the calls.

The cellular networks across the nation all operate within the same technical standards so that the customers cellular telephone can 'ROAM' or work in all areas of the country. To this extent all systems throughout the nation operate on the validation of the a mobile identification number (MIN) and the electronic serial number (ESN) as seen by the network. Regardless of how the ESN is altered, tampered, transferred, cloned, emulated, copied, or in some way bypassed by other operating software makes no difference to the cellular network. The network will receive the MIN/ESN combination from the modified cellular telephone and proceed to validate the call based on the information received. This information looks identical to the original phone on the cellular system's network.

ESN emulation by the C2+ process has been done by agents in Bell Atlantic NYNEX for the express purpose of testing the results and interaction of the emulated cellular phone on the network. The emulation causes the phone to transmit a different ESN than that which was factory-installed. This emulated phone transmits a different ESN. Which represents a different cellular phone. The cellular system allows the call to go through because it believes it to be the original phone.

In its efforts to combat cellular fraud, Bell Atlantic NYNEX Mobile has invested millions of dollars in fraud detection technologies. These technologies can detect counterfeit phones on the system by using time / distance, finger printing, etc. These technologies cannot determine which cellular telephone is the authorized phone and which is the counterfeit. Furthermore, these technologies cannot determine whether the counterfeit phone is being used for purposes of fraud or by the subscriber as a second phone. Bell Atlantic NYNEX Mobile expends considerable resources to protect itself and its subscribers from fraud, including the automatic termination ('HOT LINE') on accounts whenever the use of a counterfeit telephone is detected. This would be a continuing problem for the emulated phone and add to the work load of the customer service personnel that would have to restore this service each time. This inability to tell the difference between phones also causes a severe problem if the emulating customer was also cloned and now there was also fraud on the account.

The emulated cellular telephone also causes interference to the operation of the network, (from an traffic engineering department view). On the AT&T system which this carrier uses two cellular phones will cause a number of "call processing errors" which at times results in a technician being dispatched to correct a perceived network problem.

Incoming calls to this phone have 'delivery' problems because the system sees both cellular phones (through the autonomous registration feature) and has to decide where to send the incoming call. If both phones were to place a call at the same time the network would disconnect the call that was in progress first. This is done because the switch uses the logic that it just saw a request the initiate a call, therefore it must have forgot to disconnect the last call. From the customers view point he sees poor service with unconnected and dropped calls. They complains to the carrier and requesting credit. In most cases the customer is not even aware that he is the one causing the problem. The carrier in turn has sent installer personnel to the customers location to 'fix' his cellular phone, only to find a Motorola portable, when the network says that it should be a Audiovox mobile. This is another hidden cost to the service providing carrier.

Besides the costs mentioned above, there is also a loss of revenue to the cellular carrier in the form of

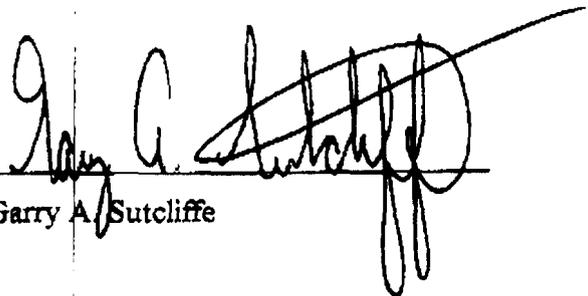
- 1) Activation fees,
- 2) Monthly access fees,
- 3) Other feature fees (3-way calling, call waiting, etc.),
- 4) Taxes due local and state governments,
- 5) a 911 surcharge on each active number.

The customer of an emulation service could be charged with tax evasion, depending on the situation and laws at the state and local levels.

Customer "good will" is also a factor that the carriers are concerned with. These customers pay a large sum to have their phones emulated and are told that it is legal. Later the cellular carrier turns their phone off and tells them that they cannot use the second phone. The poor service that they create causes them to switch to the other band. In general the carrier takes the brunt of all of the complications of this and is perceived as not managing the complete problem to the satisfaction of the customer.

C2+ Technology knows that their emulation causes interference to the network. In paperwork that I have received from C2+ they state "If more than one phone is on incoming calls may be dropped". C2+ is also aware that the call processing information (MIN/ESN) is transmitted over the air is altered because they state that "The technology is transparent to the switch".

Further affiant sayeth not."


Garry A. Sutcliffe

SUBSCRIBED AND SWORN TO BEFORE ME, the undersigned authority, on this _____ day of July, 1995.

Notary Public

Partial Compendium of Cellular Extension Companies and Cloning Equipment Providers

Prepared for
Federal Communications Commission

Prepared by
Cellular Telecommunications Industry Association

27 July, 1995 • Washington, DC

Company/Point of Contact	Address	Telephone/Email	Product
Cellsoft Technologies	N/A	609-751-2242 Ext. 2	Copy Cat Boxes
Cellular Masters	4045 S. Savier Road Oxnard, CA 93033	895-486-0867	HW, SW, and cables
California Grapevine Communications	N/A	714-581-2121 714-581-7460 (FAX)	HW, SW, cables, and Services
JEM Marketing	100 Springdale Road, A3-113 Cherry Hill, NJ	800-819-9979 Ext. 2	Copy Cat and services
Phoenix Rising Communications	3422 W. Hammer Lane, Suite C-110 Stockton, CA 95219	N/A	Electronic information on cloning
The Cellular Connection	PO Box 502 Rochester, MN 55903	N/A	Information on cellular
Dynaspek, Inc.	16835 W. Bernard Drive, #201 San Diego, CA 92127	619-674-2466	Information and services
Cell Mates	2520 Welsh Road Philadelphia, PA 19152-1439	N/A	Software

US Clone-A-Phone/Cellular	129 Quail Trail Fitzgerald, GA 31750	800-380-1682 912-423-9510 912-423-7499 (FAX)	SW, Information, and Services
Personal Touch Audio	N/A	personalt@aol.com	Services
Ce-Tech	N/A	615-851-7123 cetech@nc5.ini.net	Services
Keith Perry	PO Box 816 607 Osage Drive Leander, Tx 78646-0816	512-259-4770 cia@paranoia.com	HW and SW
ESS	PO Box 10966 Fort Wayne, IN 46955-0986	BYNN38C@Prodigy.com	Literature
Telecode	PO Box 6426-NV Yuma, AZ 85366-6426	N/A	Documentation
M.F.M. Communications	57 Addison Road Caterham, CR3-5LU United Kingdom	44-1-88-333-0060	Programming kits
Consumertronics	2011 Crescent PO Box 537 Alamogordo, NM 68310	505-439-1776 505-434-0234 (FAX)	Literature
Cellusoft Technologies Agent	5750 Lakeshore Dr. Holland, MI 49424	616-399-6390	Services
LVCC Nationwide	240 N. Jones Blvd., #122 Las Vegas, NV 89107	702-894-3617 702-242-4863 (FAX)	HW, SW, and services
Les	2039 Civic Center Drive, #176 N. Las Vegas, NV 89030	702-642-0325	HW, SW, and cables

