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ORIGINAL
FILE COPY

September 26, 1990

Steve Tribble, Director
Division of Records and Reporting
Florida Public Service Commission
101 East Gaines Street
Tallahassee, FL 32399-0850

Re: Docket No. 891194-TI

Dear Mr. Tribble:

Enclosed for filing in the above-captioned proceeding on behalf of the Citizens of the State of Florida are the original and 12 copies of Citizens' Direct Testimony of Dr. Mark N. Cooper to be filed in this docket.

Please indicate the time and date of receipt on the enclosed duplicate of this letter and return it to our office.

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- SEC *1*
- WAS _____
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Sincerely,

Darlene Driscoll

Darlene Driscoll

Enclosure

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FPSC-RECORDS/REPORTING

STATE OF FLORIDA PUBLIC SERVICE COMMISSION

In the Proposed Tariff Filings by
SOUTHERN BELL TELEPHONE AND TELEGRAPH
Company clarifying when a nonpublished
number can be disclosed and introducing
Callers ID to TouchStar Service

Docket No. 891194-TI
Filed: September 26, 1990

EXHIBIT TESTIMONY OF DR. MARY N. COOPER

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1 I. BACKGROUND AND OVERVIEW

2

3 Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

4 A. Dr. Mark N. Cooper, President, Citizens Research, 802 Lanark
5 Way, Silver Spring Maryland 20901.

6

7 Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

8 A. I hold a Ph. D. in Sociology from Yale University, an M. A.
9 in Sociology from the University of Maryland, and a B. A. in
10 English from the City College of New York.

11

12 Q. PLEASE BRIEFLY SUMMARIZE YOUR RELEVANT EMPLOYMENT EXPERIENCE

13 A. Prior to founding Citizens Research, a consulting firm
14 specializing in economic, regulatory and policy analysis, I spent
15 four years as Director of Research at the Consumer Energy Council
16 of America. Prior to that I was an Assistant Professor at
17 Northeastern University teaching courses in Business and Society
18 in both the College of Arts and Sciences and the School of
19 Business. I have also been a Lecturer at the Washington College
20 of Law of the American University co-teaching a course in Public
21 Utility Regulation.

22

23 Q. HAVE YOU PREVIOUSLY TESTIFIED IN TELEPHONE CASES?

24 A. Yes. In the United States, I have testified before the
25 Federal Communications Commission (FCC) and the Public Service
26 Commissions of the District of Columbia, Delaware, Georgia,

1 Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio,
2 Pennsylvania, South Carolina, and Washington. In Canada, I have
3 testified before the Public Utilities Board of Manitoba and the
4 Canadian Radio-Television Commission (CRTC) on various aspects of
5 telephone rate making.

6
7 Q. HAVE YOU TESTIFIED ON THE MATTER OF CUSTOM LOCAL AREA
8 SIGNALING SERVICES?

9 A. Yes, I have testified before the Public Service Commissions
10 of Pennsylvania, the District of Columbia, Georgia, Kentucky,
11 Maryland, and Delaware, the legislatures of Maryland and
12 Virginia, and the U.S. Senate.

13
14 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

15 A. The purpose of my testimony is to review the characteristics
16 of the new Signaling System 7 (SS7) technology and the services
17 it makes possible, which the company refers to as Custom Local
18 Area Signaling Services (CLASS) services. I demonstrate the
19 privacy problem created by one of these services, Caller ID, and
20 I present a solution to this problem by recommending that an
21 additional function be added to the SS7 technology -- number
22 forward blocking.

23
24 Q. WHAT DO YOU CONCLUDE?

25 A. The new SS7 technology makes a number of services possible,
26 including Calling Number ID (Caller ID), Call Tracing Service

1 (Automatic Call Trace), Call Block, Automatic Call Return
2 (Automatic Recall), etc., that embody significant potential to
3 enhance subscribers' call management capabilities. However, as
4 with every technology, there are both potential benefits and
5 potential problems resulting from its implementation.

6 Caller ID represents a fundamental change in the nature of
7 telephone service. It takes control over the telephone number
8 away from the calling party and gives it to the party receiving
9 the call. This loss of control means the loss of anonymity that
10 has been the norm and expectation of calling parties for at least
11 the last several decades. It can result in a host of potential
12 problems ranging from turning up on more telemarketers' calling
13 lists, to undermining the viability of hot lines, to increasing
14 the number of angry and harassing exchanges between telephone
15 subscribers.

16 Q. WHAT DO YOU RECOMMEND?

17 A. I recommend that an additional function be added to the
18 CLASS family of services to strike a better balance between the
19 potential costs and benefits of this new technology. The
20 function is referred to as Number Forward Blocking. It allows
21 the calling party to preserve the anonymity of his or her
22 telephone number, thereby alleviating many of the potential
23 problems of Caller ID. Number forward blocking is well within
24 the capability of the technology, having been designed into its
25 initial implementation, and ordered and/or implemented in a
26 number of other jurisdictions.

1 Because of the broad based impact of Caller ID and the fact
2 that subscribers do not now have to reveal their numbers when
3 they place a call, I recommend that number forward blocking be
4 offered to subscribers on a per call basis at no charge.

5

6 Q. HOW DOES PER CALL NUMBER FORWARD BLOCKING AFFECT THE VALUE OF
7 THE NEW TECHNOLOGY?

8 A. It should be stressed that even with number forward
9 blocking, the call recipient will still have a greatly enhanced
10 capacity to manage incoming calls as a result of the SS7
11 technology. The anonymity of the telephone number provided by
12 number forward blocking does not apply to the central office
13 switch. Therefore, in those cases where number forward blocking
14 is invoked, the called party will still have all the other CLASS
15 services available. He or she will be able, for example, to
16 trace or return an incoming call automatically or block further
17 calls from a particular number.

18 At the same time, per call blocking preserves the basic
19 benefit of Caller ID. It allows emergency service providers to
20 see the telephone number of those in need of assistance, since
21 very few people would block the forwarding of their number in
22 emergency circumstances. It does not significantly diminish the
23 ability of the new technology to deter harassing or annoying
24 calls.

25 Thus, the addition of number forward blocking provides a
26 significant benefit to the vast body of subscribers by allowing

1 them to preserve the privacy of their telephone numbers, while
2 also preserving the functionality and usefulness of the overall
3 SS7 technology.

4
5 Q. ON WHAT EVIDENCE DO YOU BASE YOUR CONCLUSIONS?

6 A. I have reviewed numerous Southern Bell Documents, the
7 service prospectus and other documents prepared by Bellcore
8 dealing with the new technology, national survey evidence not
9 specific to any single company, and survey and other documentary
10 evidence from a number of companies including Southern Bell, Bell
11 Atlantic, Pacific Bell, Rochester Telephone, and Central
12 Telephone which have proposed and implemented the service.

13 Caller ID represents a very fundamental change in the nature
14 of telephone service. Its impact on subscribers is complex. No
15 single company has researched the implications of the service
16 completely, but a large body of evidence is emerging across the
17 nation.

18 In order to present a complete picture of Caller ID,
19 throughout my testimony, I state generic issues and refer to the
20 empirical evidence from Florida where it is available. However,
21 since a great deal of research has been conducted in other
22 states, I then examine non-proprietary empirical data that is
23 available from other jurisdictions to illustrate my points.

24

25

26

1 II. THE POSITIVE AND NEGATIVE ASPECTS OF THE NEW TECHNOLOGY

2

3 Q. PLEASE DESCRIBE THE NEW TECHNOLOGY AND ITS FUNCTIONS.

4 A. The new technology enables the central office switch to use
5 the dialed number in a very flexible manner. Both the calling
6 and the called party can instruct the central office switch to
7 manipulate the number that was dialed. For example, the calling
8 and called parties can tell the switch whether or not to forward
9 the number to the party receiving the call. The called party can
10 tell the switch to trap the number for later reference, dial the
11 number back automatically, or block additional calls from the
12 originating number to the called party.

13

14 Q. WHAT ARE THE USES OF THE NEW SERVICES?

15 A. The Service Prospectus for the SS7 technology, published
16 five years ago, identified a variety of functions that could be
17 served by this technology, as the table on the following page
18 shows. The functions include information, convenience, privacy
19 (peace of mind), security, and discretion.

20 Among the SS7 services, Caller ID, Automatic Recall
21 (redial), Customer Originated Trace and Distinctive Ringing (VIP
22 Alert) were identified as having informational benefits.
23 Customer Originated Trace (Automatic Call Trace) and Selective
24 Call Rejection (Call Block), not Caller ID, were seen as
25 providing privacy or security benefits. These are the functions
26 involved in the question of how best to configure the SS7

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ALTERNATIVES TO CLASS OFFERING

<u>CLASS Feature</u>	<u>Service/Benefit</u>	<u>Alternatives</u>
Automatic Recall	Redials last incoming call/Information	Answering machine Call Forwarding Call Waiting
Automatic Callback	Redials last outgoing call/Convenience	Autodialers
Customer Originated Trace	Stores last call at a secured terminal/ Security/Information	Annoyance Call Bureau Service
Selective Call Rejection	Blocks specific calls/Privacy, peace of mind	Place phone off hook, Don't answer Answering machine
Distinctive Ringing	Identifies incoming calls/information	Answering machine Consumer pre-arranged ringing patterns
Selective Call Forwarding	Re-routes specific calls/Discretion	Call Forwarding Consumer provided itinerary
Call Number Delivery	Incoming call display/Information	Answering machine

SOURCE: Bell Communications Research, Custom Local Area Signaling Service: Service Prospectus (Special Report, SR-BEL, December 1985), p. 6.

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technology.

Other network and non-network services also provided similar services. An answering machine was seen as "a very flexible product for meeting call management needs," which met informational and privacy needs. The annoyance call bureau was seen as a security alternative.

This is not to say that any one service is a perfect

1 substitute for any other, but the considerable overlap of
2 functionalities clearly suggests that the functions of Caller ID
3 can be compensated for by these other services and instruments.
4 Moreover, since this early conceptual analysis the evidence has
5 continued to mount showing that consumers perceive the overlap of
6 functionalities and use the services in interchangeable ways.

7

8 Q. WHAT IS THE PROBLEM THAT CALLER ID POSES?

9 A. Caller ID is a unique type of service. Unlike most other
10 telephone services, the mere availability of Caller ID imposes
11 social and economic costs on all subscribers, even those who do
12 not want the service, while it provides benefits to some others.
13 The costs stem from the customer's loss of control over his or
14 her telephone number.

15 Patterns of telecommunications have been built on the
16 assumption of anonymity. There are a host of situations in which
17 the average person seems to want to place a call without
18 revealing his or her telephone number. When Caller ID robs them
19 of that ability, the social costs imposed are a disruption of
20 communications patterns and the economic costs are the expense to
21 consumers of restoring their privacy and anonymity.

22 The following table identifies problems arising from the
23 loss of anonymity and privacy caused by Caller ID. Four broad
24 categories of problems are identified -- disruption of routine
25 communications, commercial abuse of a Caller ID revealed

26

PROBLEMS WITH CALLER ID

TYPE OF PROBLEM	DEFINITION OF ISSUE
DISRUPTION OF ROUTINE COMMUNICATIONS	
CONSUMER INFORMATION	REQUESTS FOR CONSUMER INFORMATION WILL BE FOREGONE BECAUSE CONSUMERS DO NOT WANT TO EXPOSE THEIR TELEPHONE NUMBERS IN COMMERCIAL TRANSACTIONS.
SOCIAL MANEUVERABILITY	REVELATION OF ONE'S LOCATION MAY UNDERMINE DELICATE SOCIAL RELATIONSHIPS (E. G. A CALL FROM A LAWYER OR DOCTOR'S OFFICE).
LOCATIONAL AND NETWORK MONITORING	THE LOCATION OF PEOPLE AS THEY MOVE ABOUT THEIR BUSINESS MAY BE REVEALED, CONVEYING INFORMATION THE CALLING PARTY MAY NOT WISH REVEALED.
TELEGRAPHIC STRATEGIC AND PERSONAL PLANS	IDENTIFICATION OF CALLER MAY REVEAL VITAL INFORMATION ABOUT THEIR PLANS.
COMMERCIAL ABUSE OF THE TELEPHONE NUMBER	
TELEMARKETING	IDENTIFICATION OF THE TELEPHONE NUMBER WILL RESULT IN INCLUSION OF MORE NAMES AND ANNOYING CALL BACKS.
PERSONAL DATABASES	COMBINATION OF THE PHONE NUMBER WITH OTHER DATA COULD COMPROMISE PERSONAL INFORMATION.
THEFT OF TELEPHONE NUMBER RELATED SERVICE OR INFO	SERVICES TRIGGERED BY A TELEPHONE CALL MAY BE MISTAKENLY OFFERED TO ANYONE POSSESSING THE NUMBER, EVEN THOUGH IT WAS NOT PROPERLY TAKEN FROM A CALLER ID REGISTRY.
DECLINING	BUSINESSES MAY CHOOSE TO NOT ANSWER CALLS FROM SPECIFIC EXCHANGES BASED ON THE SOCIAL, ECONOMIC, RACIAL, OR OTHER CHARACTERISTICS OF THOSE EXCHANGES.
SPECIAL SITUATIONS	
ANONYMITY DEPENDENT ORGANIZATIONS	ORGANIZATIONS LIKE HOT LINES, TIP LINES, POLITICAL ORGANIZATIONS, GOVERNMENT AGENCIES, ETC. REQUIRE STRICT ANONYMITY TO INDUCE CALLERS TO SEEK HELP OR OFFER INFORMATION.
SANCTUARIES	THE LOCATION OF CERTAIN ORGANIZATIONS REQUIRES SECRECY FOR THE PROTECTION OF RESIDENTS.
WORK AT HOME	CERTAIN PROFESSIONS REQUIRE WORK FROM HOME AND REVELATION OF THE LOCATION COULD UNDERMINE THE ABILITY TO CONDUCT BUSINESS.
PUBLIC PERSONS	HIGHLY VISIBLE PUBLIC PERSONS CAN BE SUBJECT TO ANNOYANCE AND/OR HARASSMENT SHOULD THEIR NUMBER BECOME AVAILABLE.

PROBLEMS WITH CALLER ID (CONTINUED).

INTERPERSONAL PROBLEMS ARISING FROM CALLER ID

MISTAKEN NO ANSWERS	VALUABLE CALLS FROM UNFAMILIAR LOCATIONS WILL BE MISTAKENLY UNANSWERED (A WIFE CALLING FROM A GAS STATION).
PRIVACY WITHIN THE HOME	THE INFORMATION ABOUT AN INCOMING CALL FOR ONE HOUSEHOLD MEMBER MAY BE MADE AVAILABLE TO OTHERS FOR WHOM IT IS INTENDED, COMPROMISING PRIVATE RELATIONSHIPS.
MISTAKEN IDENTITIES	THE ASSUMPTION THAT WHOEVER ANSWERS THE TELEPHONE AT A NUMBER OBTAINED THROUGH CALLER ID WAS THE ORIGINAL CALLER MAY BE WRONG, LEADING TO CASES OF MISTAKEN IDENTITY.
WRONGFUL RETURN OF A CALL	MISTAKES HAPPEN IN DIALING AND A CALLER ID SUBSCRIBER WHO MISDIALS THE NUMBER OF A PERCEIVED ANNOYANCE CALLER CAN CREATE AN EVEN GREATER ANNOYANCE.
REVERSE HARASSMENT	MANY OF THE PERCEIVED ANNOYANCE CALLS ARE INNOCENT MISTAKES, SUCH AS WRONG NUMBERS. CALLER ID MAY BRING ON A SPATE OF REVERSE HARASSMENT WITH AN INNOCENT MISDIALER BEING HARASSED BY AN ANGRY CALLER ID SUBSCRIBER WHO FEELS WRONGED.
PROLONGED HARASSMENT	SOME HARASSING CALLS ARE DIALED RANDOMLY. IF CALLER ID IS USED TO DIAL THE HARASSER BACK, THE NUMBER WILL BE REVEALED AND A PROLONGED EXCHANGE OF CALLS MAY BE INITIATED.
MISTAKEN ADDRESSES	REVERSE DIRECTORIES (OFFICIAL OR COMMERCIAL) MAY BE OUT OF DATE LEADING TO MISTAKES IN ASSOCIATING NUMBERS WITH ADDRESSES.
UNEQUAL ACCESS TO PRIVACY	THE COST OF CALLER ID AND SUBTERFUGES TO PROTECT ONE'S PRIVACY WILL RESULT IN LOWER INCOME HOUSEHOLDS BEING LESS ABLE TO AFFORD THESE SERVICES AND ENJOYING LESS PRIVACY.

1 telephone number, special situations where anonymity is
2 particularly important, and interpersonal problems. Within these
3 categories, twenty specific types of problems are identified.

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1 III. GENERAL CONSUMER REACTIONS TO CALLER ID

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3 Q. WHAT IS THE GENERAL CONSUMER REACTION TO CALLER ID?

4 A. In general, consumer reaction to Caller ID is sharply
5 divided. The number of telephone subscribers who find the
6 service troubling equals or exceeds the number who find the
7 service interesting or valuable. This is true for those who are
8 presented with the prospect of having the service available in
9 their area as well as those who have lived with it.

10

11 Q. ARE THERE NATIONAL OPINION SURVEYS REGARDING CALLER ID?

12 At the national level, a public opinion poll conducted by
13 Louis Harris for Equifax clearly showed this division. As the
14 table on the next page shows, when simply presented with a
15 description of the services, public opinion splits 55-to-43
16 percent to allow the service. When the positive and negative
17 aspects of the service are pointed out, less than one-quarter of
18 respondents say the service should be allowed without
19 restriction. Almost half the respondents say that the service
20 should be allowed only if the ability to prevent the forwarding
21 of a telephone number is made available. Over one-quarter say
22 the service simply should not be allowed.

23 Other, less scientific, surveys of readers of specific
24 magazines have produced similar results. For example, in a
25 Glamour Magazine survey from May 1990 (p. 187) roughly half

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NATIONAL OPINION POLLS ON CALLER ID

A new telephone service, "Caller ID," is available in some states. People with this service will be able to see the telephone number of the person calling them. Do you think telephone companies should be allowed to sell this service to people who want to buy it, or not?

Yes, should be allowed to sell	55%
No, shouldn't be allowed to sell	43
Not sure	2

Some telephone companies are offering a new service that displays to subscribers the telephone number of the person calling them when the phone rings. Some people are worried that this will reduce privacy of telephone use, by giving people's unlisted numbers and because people will no longer be able to call help or hotlines and remain anonymous. Telephone companies say the service will allow people to screen out unwanted calls. They also report that tests of the service and publicity about it have produced a drop in obscene or harassing calls. Considering these arguments, do you feel this new service should be (read each item) or not?

Available to telephone subscribers without any limitation	23%
Permitted by regulators only if calling parties have the ability to block display of their number when they want to	48
Forbidden by law as too intrusive	27
Not sure	3

SOURCE: The Equifax Report on Consumers in the Information Age, 1990, pp. 79-82.

1 of the respondents said they would like to know the number before
2 it was called, but 77 percent said that the telephone company
3 should provide devices for people to block the forwarding of
4 their number to customers who want to.

5

6 Q. DOES THE EVIDENCE FROM FLORIDA EXHIBIT SIMILAR DIVIDED
7 OPINIONS?

8 A. Yes, although no such direct question was posed about the
9 service in the Southern Bell Telephone and Telegraph Company
10 (hereafter the Company) surveys. Consider the feelings about the
11 key issue of privacy as reflected in the table on the following
12 page. A large segment of the population feels that forwarding
13 the outgoing number will decrease privacy. For a service that
14 has been marketed as a privacy enhancing device this underscores
15 the fundamental problem with the service.

16 The conflicting feelings about the service are quite strong
17 in certain sub-segments of the population. Those who are not
18 likely to take the services (the majority) and those with non-
19 published numbers are more likely to see forwarding their number
20 as decreasing privacy and/or less likely to see receiving
21 incoming numbers as increasing privacy.

22 Q. DO CONSUMERS PERCEIVE THIS SERVICE AS A THREAT TO THEIR
23 PRIVACY IN OTHER STATES?

24 A. Yes, a substantial segment of the population does. Privacy
25 is one of the leading concerns offered about the service in
26 Pennsylvania, when consumers were asked in an open ended question

1
2 THE IMPACT OF CALLER ID ON RESIDENTIAL
3 SUBSCRIBER PRIVACY

4 FORWARDING THE RECEIVING THE
5 OUTGOING NUMBER INCOMING NUMBER
6 EFFECT ON PRIVACY

7 ALL FLORIDA
8 RESPONDENTS

9 INCREASE 11% 48%
10 DECREASE 23 5
11 NO CHANGE/NA 64 47

12 BY LIKELY SUBSCRIPTION
13 (FLORIDA & TENNESSEE)

14 TAKERS NON- TAKERS NON-
15 TAKERS TAKERS
16 INCREASE 16% 12% 68% 35%
17 DECREASE 17 23 7 5
18 NO CHANGE/NA 67 64 25 60

19 BY DIRECTORY STATUS (FLORIDA)

20 PUB NON- PUB NON-
21 PUB PUB PUB
22 INCREASE 10% 13% 42% 53%
23 DECREASE 15 31 4 5
24 NO CHANGE/NA 75 56 54 42

25 SOURCE: BSS Market Research, Caller ID/Call
26 Blocking Study, October 1989, Tables 13,
14, 15, 16 (hereafter, Blocking Survey)

1 about their concerns regarding Caller ID. When given a direct
2 statement that the service is an invasion of privacy 38 percent
3 of respondents agreed.

4 The following table shows both the concern about privacy and
5 the concern number forwarding. Overall, 59 percent of
6 respondents say that the service is either an invasion of their
7 privacy or that they would mind forwarding their numbers on at
8 least a few occasions. This feeling is strongest among
9 subscribers with non-published numbers (65 percent).

10
11 COMBINED CONCERNS ABOUT PRIVACY
12 AND NUMBER FORWARDING

13

	ALL	PUB	NON-PUB
n=	601	301	300
PROBLEM WITH CALLER ID	59%	57%	65%
PRIVACY & FORWARDING	(16)	(16)	(19)
PRIVACY ONLY	(22)	(23)	(19)
FORWARDING ONLY	(20)	(19)	(26)
NO PROBLEM	41	43	35

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19 SOURCE: Pennsylvania 1988 database.

20
21 These survey results have been repeated in Maryland,
22 Delaware and the District of Columbia. Moreover, businesses in
23 those jurisdictions express an even higher level of concern.

24 Similar findings obtain in other areas of the country. For
25 example, Pacific Bell found similar results in its service
26 territory.

Our research indicates that without offering

1 any blocking options those strongly opposed
2 to Caller ID are about equal to those
3 strongly supporting the service. Adding Per
4 Call Privacy significantly reduced
5 opposition to the product ("Statement of John
6 Stangland on Privacy Related Concerns
7 Surrounding "Caller ID" Service,"
8 Subcommittee on Technology and the Law,
9 Committee on the Judiciary, United States
10 Senate, August 1, 1990, p. 6).

11 The above responses are from consumers who are presented
12 with the prospect of Caller ID. A similar response is in
13 evidence among those who live with the service (as the following
14 table shows). For example, in Hudson County, New Jersey,
15 where

16 CONCERN ABOUT CALLER ID COMPARED TO INTEREST IN THE SERVICE
17 IN HUDSON COUNTY, NEW JERSEY

	PUBLISHED	NON-PUBLISHED
	6/88	6/88
VERY OR SOMEWHAT CONCERNED	39%	59%
VERY OR SOMEWHAT INTERESTED	27	51
RATIO OF CONCERN TO INTEREST	1.44	1.16

18 SOURCE: Wave III Results for Class Non-Users in Hudson
19 and Passaic Counties, June 1988, (marked as
20 Attachment X), p. 10, 14-of-24.

21 these services have been available the longest, those expressing
22 concern about revealing their number exceed those expressing
23 interest in the service.

24 This trend has been growing since the early days of the

1 service. The longer it is available, the stronger the trend
2 toward concern outweighing interest in the service.

3 The pattern in Florida mirrors that in New Jersey. Those
4 with non-published numbers exhibit strong privacy concerns about
5 the services -- both about revealing their own numbers and seeing
6 incoming numbers.
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1 IV. SPECIFIC PROBLEMS WITH CALLER ID

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3 Q. IS THERE EVIDENCE ON THE SPECIFIC PROBLEMS THAT CALLER ID
4 CREATES?

5 A. Unfortunately, there does not appear to be survey evidence
6 from Florida on the types of problems that Caller ID creates.
7 However, there is testimonial evidence in Florida and Maryland
8 and survey evidence from other states.

9 For example, as the following table shows, consumers in

10

11 SPECIFIC COSTS OF CALLER*ID	
12 WOULD MIND FORWARDING ON MANY/FEW OCCASIONS	36%
13 Wouldn't want to be 14 bothered by follow-up calls	12
15 Consider my telephone 16 number to be private information.	12
17 Prefer anonymity in certain situations	3
18 First thing you know, 19 I'd be getting calls from all kinds of businesses.	1
20 Other	7
21 Don't know	4
22 NO OCCASION	63

23 SOURCE: Caller *ID Service:
24 Pennsylvania Residential and
25 Business Customers, November
26 1988 (Chilton
Research Service), marked
Exhibit No. 2, pp. 14-of-66
and 20-of-66.

26 Pennsylvania are concerned about follow-ups and call backs from

1 businesses. The hearings conducted in Florida by the Office of
2 People's Counsel saw testimony on this point (Record of
3 Proceedings, RE: Southern Bell Caller I.D., Docket No. 891194-TL,
4 May 30, 1990, pp. 25-26, 46, and 196, hereafter Record).

5 Consumers in Pennsylvania also are concerned about the
6 privacy and anonymity of their telephone calls. The hearing
7 record in Florida also reflects this concern (Record, p. 157).

8 Even more specific data is available from a question asked
9 by Bell Atlantic about calls on which consumers would wish not to
10 forward the numbers, as the following table shows.

11

12 RESPONDENT CONCERN ABOUT NUMBER FORWARDING AND
13 WILLINGNESS TO BLOCK SPECIFIC TYPES OF CALLS

	% WITH CONCERN	% OF CONCERNED WHO WOULD BLOCK FOR FREE
14 ALL RESPONDENTS		
15 CAR DEALER	40%	84%
16 REAL ESTATE AGENT	33	79
17 DEPARTMENT STORE	29	77
18 DRUG HOTLINE/AGENCY	25	73
19 800 NUMBER	24	75
20 INSURANCE COMPANY	23	84
INTERNAL REVENUE	21	75
21 PIZZA CALL BACK	17	70
EMPLOYER	10	51
22 EMERGENCY SERVICES	8	19
LEAVING HOUSE	6	51
23 FRIENDS	5	43
FAMILY	3	50

SOURCE: Pennsylvania 1986 Data base.

24 In the category of disruption of ordinary communications, there
25 is evidence of concern about revealing the telephone number on
26 business calls, like a call to a car salesman, real estate agent,

1 department store or insurance agent.

2 Directly linking this to the category of commercial abuse of
3 the telephone number, respondents seem particularly annoyed about
4 telemarketing. They correctly perceive that Caller ID could
5 increase telemarketing calls. Telemarketing is the most frequent
6 form of annoying calls that survey respondents say they receive.
7 This is true in the Privacy Survey conducted by Bell
8 Communications Research for the Southern Bell region (question
9 213). It is also true in each Bell Atlantic survey of annoying
10 and harassing calls.

11 In the category of special situations, the Pennsylvania data
12 shows that people are concerned about revealing their numbers to
13 hotlines. Needless to say, various special situations have
14 received considerable attention in Florida (e.g. Record, pp. 55-
15 56).

16 In Pennsylvania respondents also recognize that unpublished
17 numbers will be compromised and are concerned about it. This is
18 a very clear finding of the Florida survey research. A majority
19 of respondents felt that these numbers should not be given out
20 (Blocking Survey, Table 7).

21 The general public's concern about number forwarding on
22 specific occasions only underscores the importance of blocking
23 for others with special needs to protect the privacy of their
24 telephone numbers.

25 These groups are quite large. They include doctors, lawyers
26 and school teachers who have to call patients, clients and

1 parents after hours to deliver stern messages or bad news and
2 don't want to be subject to repeated call backs or harassing
3 calls (Record, pp. 12, 87, 160).

4 They include public figures -- judges, prosecutors, public
5 utility commissioners, journalists and legislators -- who are in
6 the public eye and need to keep their numbers private, but will
7 be unable to do so with Caller ID (Record, p. 174).

8 They include the volunteers for battered women's centers, or
9 estranged wives who call home from a friend's house to check on
10 the kids, and don't want to have their location compromised; or
11 charity workers who call from home to raise money for the church
12 and don't want to give their number out to every potential bad
13 guy who they might happen to call in the course of their
14 legitimate and good work (Record, p. 110, 170, and Attachment).

15 Overall, sixty percent of the respondents in Pennsylvania
16 identified at least one type of call for which they did not want
17 to forward their number.

18 Results from California are similar (Ethan Thorzman, Pacific
19 Bell: Calling Number Delivery and Privacy, Issues, Options and
20 Implementation, March 16, 1990, p. 3). The predominant concern
21 expressed dealt with privacy and a desire not to have their
22 telephone number given out. Exposure to harassing calls, and
23 sales calls were cited next.

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25
26

1 V. INTEREST IN NUMBER FORWARD BLOCKING

2
3 Q. HOW DOES INTEREST IN CALLER ID COMPARE TO INTEREST IN NUMBER
4 FORWARD BLOCKING?

5 A. Given the high level of concern about loss of privacy and
6 potential abuse of telephone numbers, we would expect to find
7 considerable interest in the ability to block the forwarding of
8 the telephone number. As we have seen, the national surveys as
9 well as the Pacific Bell evidence indicate strong support for
10 number forward blocking. Interest in blocking or preventing the
11 service from going forward because of privacy concerns reaches
12 three quarters of the respondents in the national surveys.

13 Unfortunately, the Florida survey did not contain a direct
14 question on the interest in blocking. People were only asked
15 whether some, unspecified, alternative to blocking was
16 acceptable. About one-fifth of the respondents said only
17 blocking was acceptable. Approximately one-seventh said they did
18 not know, indicating that alternatives to blocking might not be
19 acceptable.

20 More detailed questions are available in Pennsylvania, as
21 the following table shows. More people said they would be
22 interested in blocking the forwarding of their number than in
23 taking the service. The willingness to pay for blocking is
24 roughly equal to the willingness to pay for the service.

25 Similar results occur in other Bell Atlantic jurisdictions.
26

	LIKELIHOOD OF SUBSCRIBING TO			
	CALLER*ID		NUMBER BLOCK	
	FREE	\$5/Mo.	FREE	\$5/Mo.
Total Likely	26%	27%	33%	25%
Very Likely	4	8		11
Somewhat Likely	22	19		14
Total Not Likely	74	73	N/A	75
Not Too Likely	22	18		27
Not At All Likely	52	55		48

SOURCE:
Bell Atlantic Network Services Inc., ANI Disclosure,
marked Attachment I, pp. 9-of-20, 18-of-55, 28-of-55.

12 It is interesting to note that the willingness to pay for
13 Caller ID as stated in response to a price-based question is
14 similar in Florida and Pennsylvania. When reminded that they
15 would have to pay for the display device and presented with a
16 monthly charge of \$7, approximately 5 percent of the respondents
17 said they would definitely subscribe and about 19 percent said
18 they were likely to subscribe. This is very close to the
19 response in Pennsylvania where 8 percent said they were very
20 likely to subscribe and 19 percent said they were somewhat
21 likely.

22 Moreover, we have noted that about one-fifth of Florida
23 respondents said they would not accept alternatives to blocking
24 and another 13 percent said they did not know whether they would
25 accept an alternative. This is similar to Pennsylvania where
26 one-third said they would block for free.

1 Thus, we find similar levels of interest in the service and
 2 number forward blocking in a variety of states. By and large,
 3 interest in blocking equals or exceeds interest in the service.
 4 Number forward blocking will meet a need and concern of consumers
 5 to preserve their anonymity. This need appears to be at least as
 6 strong as the desire to have the number of the incoming call
 7 revealed. In short, number forward blocking is just as valuable
 8 to consumers as Caller ID, if not more valuable.

9
 10 Q. ON WHAT SPECIFIC TYPES OF CALLS ARE CONSUMERS LIKELY TO
 11 BLOCK THE FORWARDING OF THEIR NUMBER?

12 A. This expression of concern about number forwarding and
 13 interest in blocking is followed up with a desire to block
 14 specific types of calls, as the following table shows. Those
 15 people who said they would mind having their number forwarded on

	% OF CONCERNED WHO WOULD BLOCK FOR FREE	% OF BLOCK FOR FREE WHO WOULD BLOCK FOR \$.05
CAR DEALER	84%	63%
REAL ESTATE AGENT	79	57
DEPARTMENT STORE	77	49
DRUG HOTLINE/AGENCY	73	55
800 NUMBER	75	43
INSURANCE COMPANY	84	57
INTERNAL REVENUE	75	59
PIZZA CALL BACK	70	42
EMPLOYER	51	16
EMERGENCY SERVICES	19	13
LEAVING HOUSE	51	16
FRIENDS	43	15
FAMILY	50	17

SOURCE: 1986 Pennsylvania database.

1 specific types of calls were quite likely to say that they would
2 take advantage of number forward blocking.

3 For example, 84 percent of those who said they would mind
4 revealing their number to a car salesman said they would block
5 for free. This relatively high percentage of people who say they
6 would block for free typifies all of the calls dealing with
7 purchases and governmental bodies -- car salesman, real estate
8 agent, department store, insurance company, drug hotline/social
9 agencies and the IRS.

10 Interestingly, the willingness to block emergency services
11 (which are like other governmental functions) is low. Blocking
12 for family members and friends is also low, but those who are
13 concerned about number forwarding have an interest in blocking
14 for free.

15 These responses lend strong support for a policy which
16 allows emergency service agencies to have access to numbers --
17 either through Enhanced 911 service or Call Trace or Caller ID --
18 and allows subscribers to block on a per call basis. Consumers
19 generally do not mind the former and a significant minority wants
20 the latter.

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1 VI. THE IMPACT OF NUMBER FORWARD BLOCKING ON
2 THE REDUCTION OF ANNOYING CALLS

3 Q. WON'T NUMBER FORWARD BLOCKING UNDERMINE THE ABILITY OF THE
4 SS7 TECHNOLOGY TO REDUCE ANNOYANCE CALLS?

5 A. Not significantly, for three reasons. First, as noted,
6 there is considerable overlap in the functionality of the
7 services. Second, careful analysis of annoying calls reveals
8 that many of these types of calls will not be deterred by this
9 technology, regardless of how it is configured. Third, there are
10 actually ways in which number forward blocking may enhance the
11 call management capabilities of the new technology.
12

13 Q. WHY IS THE OVERLAP OF FUNCTIONALITIES SO IMPORTANT?

14 A. The overlap is important because these functions can help
15 the public manage the use or reduce the abuse of the telephone
16 network. Therefore, they are worthwhile and should be offered.
17 The fact that one of the services -- Caller ID -- creates a major
18 problem can be responded to by reconfiguring the technology
19 without losing the important functions of other services.
20 Because the reconfiguration I propose -- number forward blocking
21 -- does not affect the usefulness of the other services and only
22 marginally affects Caller ID, the public achieves just about the
23 same functionalities but without the major cost that Caller ID
24 imposes.
25

26 I have already noted that the industry recognizes the
substitutability of services. Recent testimony by a

1 representative of Central Telephone reiterates this overlap.

2 Nor does optional call blocking prevent the
3 identification of the originating number of
4 obscene or harassing calls. Customers with
5 Return Call service have the option of
6 returning an immediately preceding incoming
7 call even if Calling Number ID Block had been
8 used by the caller. Furthermore, the related
9 Call Trace feature enables all customers,
10 regardless of whether they subscribe to
11 Calling Number ID and whether the caller used
12 Calling Number ID block, to immediately
13 initiate a trace of obscene or harassing
14 calls. Results of such a trace would be
15 stored in the telephone company's switching
16 office and would be released only to
17 appropriate law enforcement authorities.
18 Return Call and Call Trace can be effective
19 deterrents to obscene and harassing callers
20 even while optional call blocking preserves
21 the privacy of other users ("Statement of
22 S.E. Leftwich on Electronic Communications
23 Privacy," Subcommittee on Technology and the
24 Law, Committee on the Judiciary, United
25 States Senate, August 1, 1990, p. 3).
26

The hearing record in Florida makes this point quite clearly
(e.g. Record, pp. 30, 36).

Q. DOES THE SURVEY EVIDENCE SUGGEST THE SUBSTITUTABILITY OF
SERVICE?

A. Yes, in New Jersey, survey respondents were asked to discuss
the effectiveness of Caller ID, Call Trace and Call Block in
managing prank calls and unwanted sales calls, as the table on
the following page shows. Not only were Call Trace and Call
Block seen as ways to handle prank or unwanted sales calls, but
subscribers feel they can meet their call management needs with
these alternative services. Among those who said Caller ID is a

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TRACE OR BLOCK AS A SUBSTITUTE FOR CALLER ID				
HANDLING PRANK OR ANNOYING CALLS				
	HUDSON		PASSAIC	
	PUB	NON-PUB	PUB	NON-PUB
CALLER ID EXCELLENT				
TRACE OR BLOCK				
EXCELLENT	89%	86%	76%	88%
GOOD	11	14	22	12
FAIR OR WORSE	0	0	2	0
CALLER ID GOOD				
TRACE OR BLOCK				
EXCELLENT	49	44	48	32
GOOD	49	56	51	67
FAIR OR WORSE	2	0	1	1
HANDLING UNWANTED SALES CALLS				
CALLER ID EXCELLENT				
TRACE OR BLOCK				
EXCELLENT	72	69	75	72
GOOD	24	31	25	28
FAIR OR WORSE	4	0	0	0
CALLER ID GOOD				
TRACE OR BLOCK				
EXCELLENT	49	41	44	38
GOOD	49	59	53	62
FAIR OR WORSE	1	0	2	0
SOURCE: New Jersey, Wave III database.				

good or excellent way to handle prank calls or unwanted sales calls, 96 to 100 percent say that either Call Trace or Call Block is at least a good way to accomplish the same thing.

1 Q. DO CONSUMERS USE THE SERVICES INTERCHANGEABLY AS THEIR
2 PERCEPTIONS OF THE SERVICE FUNCTIONALITIES SEEMS TO INDICATE?

3 A. Yes, follow up analysis shows that they do. A report from
4 Bell Atlantic's first trial noted that subscribers were using
5 Call Trace for prank and nuisance calls, or even hang-ups.

6 Most traces are being made on prank/nuisance calls
7 or when a person just calls and hangs up,
8 applications that are probably more appropriate
9 for either Automated Recall or Selective Call
10 Rejection (Trial Market Research: Status Report
11 Update, p. 15).

12 New Jersey is experiencing over 30,000 call traces per
13 month, with a total subscriber base that is smaller than Southern
14 Bell's base in Florida.

15 Q. HOW WILL NUMBER FORWARD BLOCKING AFFECT THE ABILITY OF THE
16 SS7 TECHNOLOGY TO DETER ANNOYING OR HARASSING CALLS?

17 A. In order to understand how number forward blocking will
18 impact the SS7 technology's ability to reduce annoyance calls, we
19 must have a clear understanding of the types of annoying calls
20 and the alternative services available to deal with them.

21 Several of the types of calls which have been identified as
22 annoyance or crank calls simply are not going to be greatly
23 reduced by the SS7 technology, no matter how it is configured. As
24 the table on the following page shows, a very large number of
25 annoyance and nuisance calls lack the underlying motivation to be
26 deterred by SS7 technology. The caller may be intentionally
placing the call, as in a business call, or unintentionally

1 placing it, as in a wrong number. In these cases, the caller has
 2 innocent intentions and, therefore, there is no fear of having
 3 the number revealed.

4 Sales, solicitation, advertising or survey calls are very
 5 unlikely to be reduced by Caller ID because the fact that the
 6 caller's number might be revealed is a matter of indifference to
 7 the caller. The caller has a business purpose which is legal
 8 and, he or she believes, legitimate. Moreover, it is interesting
 9 to note that by giving the telephone number to local businessmen,

10
 11 ASSESSMENT OF THE IMPACT OF SS7 TECHNOLOGY ON
 CRANK/ANNOYING CALLS

CATEGORY OF CALL	REASON FOR IMPACT ASSESSMENT	TYPES OF CALLS
NOT LIKELY TO BE IMPACTED BY SS7 TECHNOLOGY		
Intentional and legal	Caller has nothing to fear from revealing number	Sales, Advertising Solicitation, Surveys
Accidental	Caller is not responsible for the mistake	Call & Hangup, Wrong Number, Late Night
Non-Anonymous Harassment	Caller does not care if number is revealed	Lover's quarrel Neighbor dispute
Calculated deviant	Caller uses subterfuge to avoid detection	Obscene, burglar
POTENTIALLY IMPACTED BY SS7		
Anonymous Harassment & Deviant behavior	Caller would not like to be identified but takes no evasive action	Joke, nuisance, obscene, burglar

1 Caller ID may generate more of the most frequent type of annoying
2 calls -- telemarketing calls. This is one of the concerns
3 repeatedly expressed by survey respondents.
4

5 A second type of crank/annoyance call is a wrong number,
6 where something might or might not be said. There is no apparent
7 harassing intention here, but people can be annoyed by it. As
8 accidents, these calls are not likely to be deterred by Caller
9 ID.

10 Third, there are even cases of annoyance calls where the
11 caller may have a harassing intention, but is known to the called
12 party. Lover's quarrels and disputes between neighbors may
13 generate some of these calls.

14 Finally, we come to instances in which the calling party's
15 intentions are not innocent and require anonymity. Before we
16 assume that these calls will be deterred by Caller ID or that
17 number forward blocking will undermine the ability to deter these
18 calls, one important observation is in order.

19 We must recognize that the harassing caller may take steps
20 to prevent his or her number from being discovered by the
21 technology (by going to a telephone booth, or using a credit
22 card, for example). The difference between Caller ID with per
23 call blocking and without it from the point of view reducing
24 harassing calls is virtually nil. Only if one is willing to
25 assume that determined harassers will invoke per call block to
26 hide their identity, but will not use a credit card, or take some
other similar action, is there a difference; such a set of

1 inconsistent assumptions are simply not plausible. Automatic
2 Call Trace is the more effective response to the problem of the
3 determined harasser.
4

5 Thus, there is only a small subset of annoyance calls which
6 could be affected by the SS7 technology and which might be
7 affected differently, if number forward blocking is offered --
8 intentional harassment without sufficient intelligence or
9 motivation to hide the number. Caller ID would pose a threat to
10 and might deter these dimwitted deviants, but so too would Return
11 Call or Call Trace. Even with number forward blocking, an
12 annoying call could be returned with automatic Return Call and/or
13 the number could be traced automatically. Call Block would end
14 the problem from the point of view of the called party.

15 Some officials in the Southern Bell group of companies have
16 recognized that Caller ID and even the Touchstar family of
17 services are not the panacea that they have been portrayed as.

18 As you and I have discussed, Caller I.D. is
19 not a remedy for someone receiving annoying
20 calls. The telephone number of a harassing
21 caller delivered to a Caller I.D. customer is
22 not usable by the Annoyance Call Center to
23 take action against the caller. Furthermore,
24 Legal has prohibited anyone in the Company
25 from providing the name and address
26 associated with the telephone number of a
27 harassing caller...

28 Also, we do not believe Caller I.D. will have
29 the deterrent effect on annoyance callers
30 that some individuals perceive. Last year
31 when the Touchstar Call Trace feature was
32 introduced in Memphis, similar comments were
33 made relative to the deterrent effect. We
34 have yet to see any significant reduction in
35 the annoyance call problem in Memphis.

1 Although the number of Memphis customers
2 requesting the traditional, free, Annoyance
3 Call Center call trace service appears to
4 have declined, this has been more than off-
5 set by the number of TouchStar Call Trace
6 customers calling to report their annoyance
7 call problems (Memo from Terry Lane, Manager-
8 Security to Janet Bernstein, Staff Manager-
9 LOB Network, December 12, 1989, hereafter,
10 Memo).

11 In fact, this is precisely the situation in New Jersey,
12 where the increase in automatic call trace initiations more than
13 offsets the reduction in reports to the Annoyance Call Bureau.
14

15 Q. DESCRIBE AN EFFECTIVE RESPONSE TO DETERMINED HARASSERS BASED
16 ON AUTOMATIC CALL TRACE AND WHY IT IS PREFERABLE TO CALLER ID.

17 A. Obviously, if a harasser is going to hide his or her
18 telephone number, then there is no technological fix. If a
19 telephone number is going to be available to start a trail to the
20 harasser, then Automatic Call Trace with a rapid response by
21 authorities is preferable.

22 The victim of serious telephone harassment can immediately
23 and automatically trace the call. The victim should then call
24 911, just as he or she would if any other crime was suffered or
25 witnessed. The police would contact the telephone company
26 immediately and be given not only the telephone number of the
27 caller, but also the street address. The police would then
28 pursue the investigation as they would for any serious crime.

29 That is the least expensive and most efficient means of
30 catching the criminal and giving relief to the victim for a
31 variety of reasons.

1 The telephone company's computerized reverse directory is
2 likely to be more complete and up to date than any commercial
3 directory the police are likely to use.

4 If the victim writes the number down, that will be
5 vigorously challenged as evidence. A telephone company record of
6 a traced call will be a stronger piece of evidence.

7 Third, the victim is not likely to recognize the number. If
8 he or she recognizes the exchange as one which is far away -- or
9 assumes that one which is not recognized is distant -- the victim
10 may be making a mistaken assumption that there is no danger. But
11 the number tells absolutely nothing about the intentions of the
12 harasser.

13 Third, if the victim has the number, he or she may be
14 tempted to call the harasser back and that could be a big
15 mistake. In general, contact with telephone harassers is unwise.
16 In fact, the first piece of advice given in the telephone book is
17 to hang up.

18 Finally, under these circumstances Caller ID also opens the
19 way to new types of abuse. For example, innocent mistakes, like
20 dialing a wrong number, may be incorrectly interpreted as
21 harassment and lead to escalating rounds of harassing calls.

22 Thus, automatic call trace with an effective and rapid
23 response is the better response to serious telephone harassment.
24
25
26

1 Q. DOES THE MOST RECENT EVIDENCE FROM NEW JERSEY DEMONSTRATE
2 THAT CALLER ID DRAMATICALLY LOWERS NUISANCE AND ANNOYING CALLS
3 AND THAT NUMBER FORWARD BLOCKING WOULD REDUCE THIS BENEFIT?

4 A. Not at all.

5 First, even if good data showed that there had been a
6 reduction in these types of calls, the evidence could not
7 distinguish which of the SS7 services had accounted for the
8 decline. Call Trace or any of the other services could account
9 for any decline.

10 Second, any measurable decline in the reports of annoying
11 calls to the telephone company may simply reflect 1) the way the
12 phone company handles complaints or 2) a displacement of such
13 complaints to other agencies. While this may reduce the work
14 load of the telephone company, it does not tell us much about the
15 nature or level of annoyance calls.

16 Third, there is no evidence on the impact of number forward
17 blocking on Caller ID or annoyance calls. Logically, there
18 should be little effect for the reasons I have given.

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1 VII. NUMBER FORWARD BLOCKING AND CALL MANAGEMENT

2
3 Q. ARE THERE WAYS THAT NUMBER FORWARD BLOCKING MIGHT
4 IMPROVE THE CALL MANAGEMENT CAPABILITIES OF THE SS7 TECHNOLOGY?

5 A. Yes. With Caller ID, the subscriber still must get up and
6 go over to the phone. He reads the number and decides he is not
7 going to answer; now he has to listen to the phone ring. For
8 many of the most frequently cited crank or annoyance calls --
9 wrong numbers, calls and hang-ups, sales calls, recorded computer
10 messages, survey researchers, fund raisers -- the called party
11 might actually terminate the annoying incident more quickly by
12 picking up the telephone and telling the other party that they
13 have a wrong number or that he or she is not interested in what
14 they have to offer.

15 In some ways, it is entirely possible that for the types of
16 calls which seem to dominate the crank and annoyance categories,
17 number blocking would actually be an aid in managing the
18 telephone. The overwhelming majority of such calls are almost
19 certain to be numbers which the subscriber to Caller ID does not
20 recognize. The subscriber is going to have to make a blind
21 judgment about a call whose number he or she does not recognize.

22 Now suppose number forward blocking is offered. For those
23 people who do not mind forwarding their numbers, the Caller ID
24 subscriber would have the same information. However, for those
25 people who do not want to forward their number, the Caller ID
26 subscriber would have a different piece of information about the

1 caller -- the caller won't reveal the number. The subscriber
2 could well choose not to deal with people who do not want to
3 reveal their numbers. In both cases, the Caller ID subscriber
4 has more information than he or she has today.

5 We should also not forget that when a number is not
6 forwarded, the called party still has the option of asking the
7 standard opening question "who is it." Callers who refuse to
8 identify themselves twice, once with number forward blocking and
9 once with a failure to say who it is, are certainly not going to
10 be well received by the called party.

11 Number blocking might also play a role in combining with
12 other services to deal with annoyance calls. Suppose a number is
13 not forwarded and you answer it anyway. The refusal to forward
14 has alerted you to be prepared to deal with someone who is
15 withholding this information. You are better able to confront an
16 annoying caller by utilizing Return Call, or Call Trace, or put a
17 stop to the calls by the use of Call Block.

18
19 Q. HAVE INDUSTRY REPRESENTATIVES RECOGNIZED THIS VALUE OF
20 NUMBER FORWARD BLOCKING?

21 A. Yes, Pacific Bell has recognized this point in its decision
22 to offer per call blocking

23 The key aspect of offering Per Call Privacy
24 is that the "private number" indicator, when
25 displayed, has message value. It says the
26 person calling has chosen, on this call, to
mask his telephone number. That knowledge
provides the recipient with helpful
information to make a choice as to whether to
answer such a call (effectively where we are

1 today) ("Statement of John Stangland on
2 Privacy Related Concerns Surrounding "Caller
3 ID" Service," Subcommittee on Technology and
4 the Law, Committee on the Judiciary, United
5 States Senate, August 1, 1990, p. 4).

6 Q. WILL NUMBER FORWARD BLOCKING UNDERMINE THE USEFULNESS
7 OF CALLER ID IN EMERGENCY SITUATIONS?

8 A. No. First, Enhanced 911 service will still provide the
9 number where it is available. Second, people are very unlikely
10 to block the forwarding of their number in an emergency.

11 Moreover, if they do, emergency services should have access to
12 Automatic Call Trace with the rapid response I have described
13 above.

14 Q. HOW DOES PER CALL BLOCKING AFFECT THE VALUE OF CALLER ID FOR
15 SPECIAL NEEDS GROUPS, LIKE THE HEARING IMPAIRED?

16 A. Caller ID with per call blocking will put the hearing
17 impaired in the same position as all other subscribers are today.
18 The primary call screening device available today is an answering
19 machine. If someone calls and chooses not to leave his or her
20 number, there is little the party receiving the call can do. If
21 they leave the number, or their name, then the call can be
22 returned.

23 Answering machines are not useful for the hearing impaired,
24 but Caller ID with per call block will be. If the caller does
25 not block, the hearing impaired person will have the number, just
26 like an answering machine. If the caller chooses to block the

1 forwarding of the number, the hearing impaired person will not be
2 able to return the call, just as if no message is left on an
3 answering machine.

4 Obviously, videotext messaging services would provide a
5 higher level of service for the hearing impaired (one which
6 approximates the functionality of an answering machine), but such
7 services have nothing to do with Caller ID.

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VIII. THE ECONOMICS OF NUMBER FORWARD BLOCKING

Q. IN LIGHT OF THESE MINOR IMPACTS OF PER CALL BLOCKING, WILL IT UNDERMINE THE ECONOMIC VALUE OF THE SERVICE?

No. The potential market for Caller ID is very small under any circumstances. However, the company has chosen to price it very aggressively. Therefore, any detraction from the value of the service that might result from per call blocking, through a reduction in demand for the service, will be easily absorbed by the service.

Pacific Bell has concluded that "activation of the Per Call Privacy feature does not significantly diminish the value of the product" ("Statement of John Stangland on Privacy Related Concerns Surrounding "Caller ID" Service," Subcommittee on Technology and the Law, Committee on the Judiciary, United States Senate, August 1, 1990, p. 4). Pacific Bell believes that this is the lesson of the Caller ID trial in Rochester, N.Y., as well as its own research.

Centel reached a similar conclusion, arguing that "optional per-call blocking will permit our customers to stop the delivery of their number on particular calls if they wish, while not taking away the broad range of benefits made possible by Calling Number ID" ("Statement of S.E. Leftwich on Electronic Communications Privacy," Subcommittee on Technology and the Law, Committee on the Judiciary, United States Senate, August 1, 1990, p. 2).

1 The Blocking Survey supports this conclusion (Blocking
2 Survey, Tables 17 and 18). When universally available number
3 forward blocking is presented, about one-quarter of the
4 respondents who said they were definite or likely to take the
5 service lower their interest in the service. Out of 371
6 respondents who said they were definite or likely to take the
7 service, 308 said that allowing no one to block either made no
8 difference, or increased their likelihood of subscribing (not
9 that 63 said it decreased their likelihood of subscribing). At
10 the same time, 228 respondents said that allowing anyone to block
11 would make no difference or increase their likelihood of
12 subscribing. Similar results obtain with respect to questions
13 about the value of the service (Blocking Survey, Tables 24, 25).

14 Thus, I do not believe that per call blocking would bear any
15 responsibility for undermining the value or viability of Caller
16 ID.

17 It is important to note that business interest in the
18 service is much more likely to be curtailed by number forward
19 blocking. Their interest is likely to be oriented toward the
20 generation of telemarketing lists.

21

22 Q. NOW SHOULD NUMBER FORWARD BLOCKING BE MADE AVAILABLE?

23 A. It should be available on a per call basis without charge.

24 The data shows large numbers of respondents who are concerned
25 about Caller ID. To impose such a cost on them, when only a
26 small number of subscribers appears likely to want the service,

1 and when other offerings can accomplish the same goals,
2 sacrifices the interests of the vast majority to the interests of
3 a small minority.

4 I have already noted that those people who said they would
5 mind having their number forwarded on specific types of calls
6 were quite likely to say they would take advantage of blocking.

7 I also recommend that a vigorous educational campaign be
8 instituted when Caller ID is made available. For the past
9 several decades the telephone number has not been forwarded.
10 People have come to depend on that. They must be made aware that
11 it is now necessary for them to take some action (dial a three
12 key prefix) in order to preserve the privacy and anonymity of
13 their telephone number. Vigorous efforts to educate them so that
14 they do not inadvertently reveal their numbers must be made.

15
16 Q. HOW SHOULD THE COSTS OF NUMBER FORWARD BLOCKING BE HANDLED?

17 A. As an incremental service, the costs are not great. Since
18 Caller ID creates the problem that number forward blocking is
19 intended to solve, I believe that any costs associated with
20 blocking should be attributed to Caller ID. This does not
21 necessitate an increase in price, however, since Caller ID has
22 already been priced far above costs.

23
24 Q. SUMMARIZE YOUR BENEFIT/COST ANALYSIS OF NUMBER FORWARD
25 BLOCKING.

26 A. 887 is an excellent new technology that opens the way toward
a number of powerful services. One of them also opens the door

1 to significant and pervasive problems by robbing customers of the
2 anonymity they have come to depend on for conducting much of
3 their telecommunications.
4

5 There is a clear compromise available between giving
6 complete control over the number to the called party and leaving
7 complete control in the hands of the calling party. The SS7
8 technology guarantees that the central office switch will have
9 the number available for storage and other manipulations that
10 enhance the call management powers of the called party. The
11 calling party should have the option, at no cost, of deciding who
12 should know his or her telephone number.
13

14 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

15 A. Yes.
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26

CERTIFICATE OF SERVICE
Docket No. 891194-TI

I HEREBY CERTIFY that a copy of the foregoing has been furnished by U.S. Mail or hand-delivery to the following parties this 26th day of September, 1990.

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