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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
 Washington, D.C. 20554

MGC COMMUNICATIONS, INC.,	)	
	)	
Complainant,	)	
	)	File No. EAD-99-002
v.	)	
	)	
AT&T CORP.,	)	
	)	
Defendant.	)	

**EXPERT STATEMENT FOR T. MICHAEL BAUER**

T. Michael Bauer is Technical Manager, Card & Operator Service Realization District, AT&T Consumer Communications Services. Between 1977 and 1984, Mr. Bauer worked as a member of the technical staff at the Operator Services and Digital Switching Laboratory of the Bell Telephone Laboratories. Since that time Mr. Bauer has been employed by AT&T in developing, managing, planning and evaluating systems for switching and processing calls, especially operator and credit card calls. Mr. Bauer holds a Masters degree in Telecommunications, a Bachelors degree in Chemical Engineering, and a Ph.D. in Psychology. Mr. Bauer has been awarded three telephony-related patents, and has four more telephony-related patents pending. Mr. Bauer has published technical articles in *Telephony* and in the *Bell Laboratories Record*. His resume is attached.

Based on his expertise in the processing and switching of credit card, operator, and other interexchange calls, Mr. Bauer will testify as to AT&T's ability to identify tandem-routed traffic that is originated by a particular LEC from other originating traffic delivered on the same trunk

group, as well as AT&T's ability to block such traffic. Mr. Bauer will testify that where, as here, MGC hands off its originating traffic at an ILEC tandem for delivery over common trunk groups to AT&T, AT&T currently cannot identify much of the traffic that MGC has originated as having been originated by MGC's end users, and cannot reasonably block even the segment of traffic that AT&T could, with effort, identify. Mr. Bauer's testimony will analyze the various forms of originating traffic in dispute in this complaint proceeding:

**1+ toll traffic.** To the extent that MGC utilizes its own dedicated NPA-NXXs, Mr. Bauer will testify that AT&T has the means to identify that calls originating from those numbers were originated by MGC's end users; but this identification is not made during call origination in the network nor used for determining call handling. Similarly where a customer is served by MGC using ported numbers, AT&T would only know that the number is MGC's with regard to end users that have presubscribed to AT&T. With regard to such customers, MGC submits today CARE records that contain information to associate MGC with the end user's ANI. However, only 70 of approximately over 500 CLECs nationwide submit CARE records to AT&T. The Local Number Portability data base, which AT&T maintains an internal copy of, contains the switch identities associated with originating numbers. However, this data base is not consulted for the purpose of determining whether a call should be allowed on the AT&T network, nor can it be relied upon accurately to associate an ANI with a JIP of a CLEC subtending end office unless all CLECs have had their respective information provisioned in the data base.

Mr. Bauer will further testify that AT&T's 4E network switches cannot themselves block traffic based on the originating number. However, AT&T has deployed network access databases that are designed primarily to deny access to customers with unsatisfactory payment history. That database is consulted on each 1+ call and in principle could block calls based on originating ANI. However, in order to block MGC's 1+ traffic, AT&T would have had to take all of MGC's CARE record information, as well as the information at its disposal relating to the NPA-NXXs used by MGC, and enter each of MGC's end users' ANIs, *line-by-line* into the network access database (and remove them from the Service Directory database if they are businesses). Undertaking this task on a line-by-line basis for each of thousands of access lines served by MGC nationwide, would be prohibitively expensive and impractical. Moreover, if and when customers of MGC decide to change LECs, AT&T would then once again have to reprogram its database no longer to block the call.

**Dial-around toll traffic.** Mr. Bauer will further testify that, as for end users who are using ported numbers but who have not presubscribed to AT&T and who make "casual" long distance calling on AT&T's network (*e.g.*, by dialing 10-10-288-1+, or another Carrier Identification Code assigned to AT&T), the situation is even worse. In that situation, AT&T's network cannot today identify the originating ANI as belonging to an MGC end user. Although the SS7 signalling system contains a field that identifies the switch that has directed the call to the AT&T network, in the case of tandem trunked traffic, the traffic that arrives at AT&T's switches is generally coded with

the switch code of the originating tandem. AT&T thus has no feasible way to identify such calls, much less block them.<sup>1</sup>

**0+ calls.** Mr. Bauer will testify that much the same applies to 0+ calling. With respect to 0+ calls from non-presubscribed phones, AT&T today cannot identify those calls as having originated with MGC. As for the remaining 0+ traffic, AT&T could use station screening databases, but the information would again have to be entered, and changed, on a line-by-line manual basis.

**1-8YY traffic.** Mr. Bauer will further testify that, because 1-8YY calls are not paid for by the calling party, AT&T's network is not designed, and AT&T thus does not have the ability, to block 1-8YY calls as a group on the basis of the particular originating phone number or numbers. Even with respect to 1-8YY calls from AT&T presubscribed customers, AT&T would have to modify each one of the millions of individual 1-8YY accounts to include information regarding each of the thousands of each LEC's ANIs that should be blocked, and would have to re-modify each of those millions of accounts each time a CLEC gained or lost a customer. Implementing such blocking would threaten the integrity of the existing 1-8YY system. With respect to 1-8YY calls from phones that are not presubscribed to AT&T, the situation is even worse: AT&T today cannot identify such calls as having originated from MGC access lines in the first place.

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<sup>1</sup> MGC's engineers appear to state that the LNP database contains information that would identify the CLEC for each telephone number. However, unlike local switches that are set up to query their database, AT&T's network switches do not dip into that database at all in processing the vast majority of originating calls. More fundamentally, the LNP database, while intended to contain the LEC identify of an ANI, cannot be relied upon accurately to associate an ANI with a JIP of a CLEC subtending end office unless all CLECs have had their respective information provisioned in the data base.

**RESUME FOR  
T. MICHAEL BAUER**

**Personal Data:**

Name:	Thomas Michael Bauer	Family Data:	Married
Born:	December 17, 1948		Two children
	Arlington, Virginia		
Address:	8 Galaxy Ct.	Availability:	Negotiable
	Belle Mead, NJ 08502	Location:	Open
Phone:	908-359-5946 (Home)		
	732-949-2606 (Work)		

**Educational History:**

B.S. Chem. Eng	1967-1971	Virginia Polytechnic Institute and State University, Blacksburg, VA
(no degree) Psychology Program	1971-1972	College of William and Mary Williamsburg, VA
M.S. Psychology	1972-1973	Carnegie-Mellon University Pittsburgh, PA
Ph.D. Psychology	1973-1979	Carnegie-Mellon University Pittsburgh, PA
M.S. Telecommunications	1987-1989	Stevens Institute of Technology Hoboken, NJ

**Professional History:**

3/95 - curr.	District Manager Manger - Card & Operator Service Realization Dist. AT&T Consumer Communications Services Holmdel, NJ
1994 - 3/95	"Acting" Dist. Manger - Card & Operator Service Realization Dist. AT&T Consumer Communications Services Holmdel, NJ
1991 - 1994	Manager - Card & Operator Service Realization District. AT&T Consumer Communications Services Parsippany, NJ
1989 - 1991	Manager - Special Government Services District. AT&T - Business Communications Services Bridgewater, NJ
1984 - 1989	Manager - Technical Long Range Planning Dist. Technical Planning, Design and Administration Div. AT&T Operator Services, Basking Ridge, NJ

- 1977 - 1984 Member of Technical Staff  
Operator Services and Digital Switching Laboratory  
Bell Telephone Laboratories, Naperville, IL
- 1976 - 1977 (part-time) Psychology Instructor, Community  
College of Allegheny County, Pittsburgh, PA
- 1974 (part-time) Programmer, Mellon Bank,  
Pittsburgh, PA
- 1971 - 1972 (part-time & summer) Assistant Testing Psychologist  
Eastern State Mental Hospital, Williamsburg, VA
- 1968 - 1969 (summer) Assistant Highway Inspector, Dept. of Transportation,  
Arlington, VA

**Patents:**

Patent Number 4,776,004: Communications Services Method and Apparatus,  
Awarded October 4, 1988.

Patent Number 4,899,375: More Efficient Call Handling for Operator  
Assistance Calls, Awarded February 6, 1990.

Patent Number 4,930,154: Audible Logo for Identifying a Common Carrier,  
Awarded May 29, 1990.

I have four patent filing in 1997, and am engaged in filings of three additional patents.

**Papers and Publications:**

Derks, P. L., and Bauer, T. M., "Study and response time for the visual recognition of 'similarity' and identity," *Journal of Experimental Psychology*, Vol. 103, No. 5, 1974, 978-984.

Bauer, T. M., "Temporal and Spatial factors in word recognition," Paper presented at the annual meeting of the Midwestern Psychological Association, 1975.

Bauer, T. M., "Organization in short-term memory," Paper presented at annual meeting of the Midwestern Psychological Association, 1976.

Allyn, M. R., Bauer, T. M., Eigen, D. J., "Planning for people: Human factors in the designing of a new service," *Bell Laboratories Record*, Vol. 58, No. 5, May 1980.

Bauer, T. M., and Benko, T. W., "TSPS No. 1 Visually Impaired Operator Console," *Bell Laboratories Record*. Vol. 61, No. 1, January, 1983.

Bauer, T. M., and Benko, T. W., "New Job Opportunities for the Visually Impaired," *Telephony*, Vol. 204, No. 8, February 21 1983.

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ATTACHMENT G

UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION

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MGC COMMUNICATIONS, INC., :  
:   
Complainant, :  
:   
v. : File No. EAD 99-02  
:   
AT&T CORPORATION, :  
:   
Respondent. :  
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445 12th Street S.W.  
Washington, D.C.

Monday, June 28, 1999

The HEARING in this matter began  
at 9:10 a.m. pursuant to notice.

BEFORE:

JUDGE JOSEPH CHACHKIN  
Administrative Law Judge



1 testimony from me.

2 MR. MERON: At this point, Your  
3 Honor, I call Mr. Bauer to the stand.

4 JUDGE CHACHKIN: Would you raise  
5 your right hand, please?

6 Whereupon,

7 THOMAS M. BAUER

8 was called as a witness and, having been  
9 first duly sworn, was examined and testified  
10 as follows:

11 JUDGE CHACHKIN: Please be seated.

12 MR. MERON: Your Honor, before I  
13 begin with Mr. Bauer, I would just like to  
14 formally move all of AT&T's exhibits into the  
15 record.

16 MR. HEYMAN: No objection.

17 JUDGE CHACHKIN: The exhibits are  
18 received.

19 (Claimant's Exhibits were  
20 received in evidence.)

21 MR. MERON: I'm going to be handing  
22 to the witness what's been marked as Exhibit

1 No. 23 by AT&T. It's a series of  
2 demonstrative exhibits that describe the  
3 network and the witness may or may not refer  
4 to it during his testimony.

5 DIRECT EXAMINATION

6 BY MR. MERON:

7 Q Good morning, Mr. Bauer.

8 A Good morning.

9 Q Speak up. Will you please state  
10 your name and business address for the  
11 record?

12 A Thomas Michael Bauer, 200 Laurel  
13 Avenue, Room D2, 2B10, in Middletown, New  
14 Jersey.

15 Q Thank you. Could you provide us  
16 please with a brief summary of your  
17 educational and employment background leading  
18 up to your current position?

19 A I have a Bachelor of Science degree  
20 in Chemical Engineering, a Master's and a  
21 Ph.D. in Psychology and Cognitive and  
22 Experimental. I have a Master's in

1 Electrical Engineering in the area of  
2 telecommunications.

3 Q Could you give me a brief summary  
4 of your work experience at AT&T leading up to  
5 your current position?

6 A My activities with AT&T and  
7 originally with Bell Laboratories, an area of  
8 AT&T, has been in the planning and  
9 development of technical features  
10 capabilities, functions in support of  
11 services in the AT&T network.

12 In my current capacity, I am a  
13 technical manager of the card and operator  
14 services realization district which is a  
15 technical planning function whose job it is  
16 to execute those functions. I have performed  
17 this for basically 22 years in this area.

18 Q In your capacity as a senior  
19 engineer at AT&T, do you have personal  
20 knowledge as to the capabilities of the AT&T  
21 network as they relate to the ability of AT&T  
22 to block tandem routed originating access

1 traffic by the identity of the originating  
2 carrier?

3 A Yes, I do.

4 MR. MERON: Your Honor, I'd like to  
5 move at this point to qualify Mr. Bauer as an  
6 expert witness in this case on the subject of  
7 network engineering.

8 MR. HEYMAN: No objection.

9 BY MR. MERON:

10 Q In preparation for your testimony  
11 today, were you asked by AT&T to assess the  
12 ability of AT&T's network to block tandem  
13 routed originating traffic?

14 A Yes, I was.

15 Q Based on your expertise, can AT&T's  
16 network today reasonably identify and block  
17 one LECS originating access traffic when that  
18 traffic is tandem routed?

19 A It cannot do that today.

20 Q Could you please begin by  
21 explaining why blocking a particular CLEC  
22 originating tandem routing traffic presents

1 such a problem to AT&T's network?

2           A       The two general aspects of  
3 understanding the network, particularly  
4 AT&T's network, which I have the most  
5 knowledge about.

6                   The first area is that the purpose  
7 of a network is fundamentally to route  
8 traffic to a destination point. It's  
9 reliance and its capabilities that are  
10 oriented towards origination of the traffic  
11 of being substantive to that purpose is  
12 virtually a minor point in the network in  
13 general and in some cases only applies in  
14 some areas of specific service application.

15                   The second aspect has to do with  
16 the import of those routing functions as  
17 local number portability affects the  
18 functions of the network. Again, from an  
19 AT&T network perspective, local number  
20 portability brought about the necessity of  
21 knowing where to deliver traffic to. It had  
22 no meaningful impact on the network directly

1 as to how to determine where the call came  
2 from.

3           If you look at the delivery  
4 mechanisms from the left, you will notice  
5 that a LECS network, when identifying the  
6 carrier of the call, the originating number,  
7 their function also is to deliver the traffic  
8 to the carrier's network. The impact of  
9 local number portability on their ability to  
10 deliver that traffic to a carrier is not  
11 because it's just do you know who the carrier  
12 is.

13           From an interexchange carrier  
14 network's perspective, local number  
15 portability requires us to know the nature of  
16 the destination, i.e., who owns the switch to  
17 which this traffic must be sent. Not where  
18 is it coming from, but where is it going to?

19           Hence, we have to either receive  
20 information in the signaling message, process  
21 information through a database, through a  
22 local number portability database, in order

1 to determine where must this traffic go.

2 Q Mr. Bauer, perhaps you could begin  
3 also by briefly describing the different  
4 types of access arrangements that AT&T has in  
5 its network today?

6 A Our traffic fundamentally  
7 originates from end offices which is the  
8 connection point to the phone in a consumer  
9 or business location. The phones themselves,  
10 whether they're residence phones or business  
11 phones, or public access phones, do not  
12 constitute much in any way of something of  
13 significance to the network. Service  
14 applications, perhaps. But the network just  
15 sees it as a place from which a call was  
16 sent.

17 The end offices have two options of  
18 delivering that traffic to an interexchange  
19 carrier network, at least in today's world.  
20 They can either have a direct connection to  
21 the end office and in the diagram that is in  
22 the exhibit you can see end offices which are

1 connected up for different types of traffic  
2 like one plus or 800 traffic that send that  
3 traffic into the AT&T network from a trunk  
4 from that end office to the AT&T switch. Or  
5 you can see a trunk that sends zero plus  
6 traffic from the end office directly into an  
7 AT&T OSPS operator services system.

8           The other alternative is to use  
9 what's referred to as an intermediate  
10 switching point or an access tandem. The  
11 function of the access tandem is to provide  
12 an aggregator of facilities to improve the  
13 efficiencies and economies of the networks in  
14 delivering traffic from Point A to Point B.

15           So an end office may send its  
16 traffic to an intermediate switching point  
17 and an access tandem. Then the access tandem  
18 delivers, again, from a routing perspective,  
19 this traffic is destined to Carrier A, AT&T,  
20 whichever. Delivers the traffic to our  
21 network.

22           Access tandems can deliver that

1 traffic to either 4e technology switches  
2 or 5e or any other switch AT&T may be  
3 including in its network as its network  
4 evolves.

5           At that point, the network's  
6 fundamentally are there to perform the  
7 service function and to deliver the call to  
8 the destination point. The network's  
9 fundamental purpose is to route.

10           Q       Now, in order to assess AT&T's  
11 ability to block calls, is it necessary also  
12 to consider the different types of traffic  
13 that AT&T receives?

14           A       Yes. The different types of  
15 traffic are in some sense what the AT&T  
16 network is doing by way of what we'll refer  
17 to as a service application. A given phone  
18 call is not treated the same way or through  
19 the same technology or with the same  
20 functions. Based on either the class of  
21 service, a residential phone often referred  
22 to as plain telephone service. Fundamentally

1 receives little by way of any function in the  
2 network other than what was the network you  
3 dialed? I'll connect you.

4           A business line, on the other hand,  
5 is typically identified to the AT&T network  
6 again either through signaling information  
7 which perhaps classes it as this is a service  
8 area of AT&T. Then a business account may  
9 have a business profile where its specific  
10 service functions and capabilities are  
11 applied to the user or granted to the user.  
12 But again, ultimately to make a phone call  
13 available and delivered to a destination  
14 point.

15           So even in a normal telephone call,  
16 the type of call you're making is affected by  
17 the service which is delivered based on the  
18 account or the subscription that we are  
19 handling.

20           Public pay phones provide one plus  
21 service. Again, the call is to go across the  
22 network. What we do there by way of billing

1 is perhaps provide the capability to collect  
2 coins deposited or provide an alternate  
3 billing function on the call.

4 This lends itself to the area of  
5 zero plus traffic. Same phone, different  
6 phone call, where you're trying to arrange  
7 for or obtain alternate billing or service,  
8 either through a mechanized system or an  
9 operator.

10 The purpose again is for us to be  
11 able to provide the service, in this case a  
12 billing function, and then deliver the call  
13 to its destination point. The switch that we  
14 use in that case is the 5e, not the 4e. So  
15 we route that traffic to a different part of  
16 our architecture.

17 The third general class of service  
18 is 800 traffic or 8YY. The function there is  
19 to route a call to a destination. The  
20 destination is determined by the 800 number  
21 and potentially other service capabilities.  
22 The bulk of 800 numbers are referred to as

1 basic service. This 800 number is really  
2 pointed to that location. Our function?  
3 Find out what the location is, deliver it  
4 there.

5           Advanced 800 services perhaps  
6 provide menus, selection capabilities on  
7 behalf of some business client who wishes to  
8 have the ability to say would you like your  
9 call directed to my maintenance center, my  
10 sales center, my business center?

11           The function again is fundamentally  
12 provide the delivery of the call to the place  
13 the customer has asked for under the service.  
14 Those are the bulk type service capability  
15 areas that AT&T provides in the network.

16           In all cases, it is to route the  
17 call. There's also capability that's now  
18 part of the competitive world I'll refer to  
19 as 1010 XX dialing dial around, the ability  
20 of anyone to use virtually any phone in the  
21 country to select the carrier to have the  
22 call delivered to for the purpose of placing

1 the phone call.

2 Q Before you go into the details of  
3 the difficulty for AT&T of blocking this kind  
4 of traffic, could you tell us generally what  
5 does AT&T have to have in terms of knowledge  
6 and capability in order successfully to block  
7 tandem routed access traffic by the identity  
8 of the carrier?

9 A To be able to block a CLEC or to  
10 block any LEC, you would clearly need to know  
11 the identity of the CLEC that's sending the  
12 traffic to you. You must know that identity  
13 prior to setting the call up and placing it  
14 through your network. To block it, you must  
15 know it now, in real time in the network.  
16 It's insufficient to know it six months or  
17 two months or 60 days from now because of a  
18 billing issue. You have to know it up front.  
19 That's an essential requirement.

20 The next part of being able to  
21 block a call in the AT&T network or I believe  
22 any interexchange carrier's network is you

1 must have a technical capability. You must  
2 have the functions required to if you can  
3 recognize the carrier to then take an  
4 appropriate action based upon it. So to  
5 block in the real world, you must do a real  
6 thing. To do a real thing in the network  
7 requires you to be able to affect the call.

8           What that means in different  
9 services is each service in its individual  
10 processing, you have to have the appropriate  
11 logic, the appropriate technical and software  
12 capability, to be able to intervene based on  
13 knowledge and information available to you in  
14 real time. To then let's say cease and  
15 desist the handling of that call in some  
16 agreed to and appropriate manner.

17           Q       Now, with respect to AT&T's ability  
18 to identify the originating character as you  
19 said in real time in order to block the call,  
20 can AT&T today rely on the NPA-NXX that may  
21 have initially been assigned to CLEC as a  
22 means of identifying that CLEC's traffic and

1 blocking it.

2           A       Okay. The use of an NPA-NXX  
3 because of local number portability is not a  
4 viable means of blocking traffic. Something  
5 as basic as a six digit number will not work.  
6 It will not work because of local number  
7 portability. If local number portability  
8 provides the option of any customer inside an  
9 NPA-NXX where porting is available to that  
10 customer to opt to go to whichever carrier or  
11 service provider they choose that provides  
12 business in that area.

13                       So one customer out of 10,000  
14 potential line numbers or customers of an  
15 area renders the entire NPA-NXX indeterminant  
16 with respect to carrier. I cannot know who  
17 the carrier of the 9,999 are anymore than I  
18 can know the carrier of the one who has  
19 changed without information.

20           Q       Let me ask you this. Doesn't a  
21 CLEC that uses SS7 signaling signal to AT&T  
22 the originating phone number? Why can't AT&T

1 in today's network use that phone number to  
2 block the call?

3 A CLECs do. CLECs that use SS7  
4 signaling will deliver the ANI, line number  
5 of the station originating the call.

6 Q I'm sorry, the ANI being A-N-I?

7 A Yes.

8 Q Thank you.

9 A Automated Number Identification.

10 Q Thank you.

11 A The purpose is so that billing can  
12 be accurately reflected when we render a bill  
13 against the account or in terms of the  
14 service that that account will provide an  
15 originating point on.

16 The line number in and of itself  
17 does not tell me who the carrier is.  
18 Signaling information provided in the SS7  
19 signaling world and specifically because of  
20 local number portability does not identify  
21 the carrier at best and only if provided  
22 because SS7 doesn't guarantee the delivery of

1 local number portability information. But it  
2 provides the technical mechanism for it.

3 If you provide what's referred to  
4 as the location routing number of the  
5 originating station in your signaling, all  
6 that tells me is the identity of the switch  
7 facility, perhaps the owner of the switch  
8 facility that the call was originated from.

9 Again, if provided by either the  
10 CLEC itself and/or maintained and transported  
11 through an intermediate switching point,  
12 let's say RBOC or ILAC or whoever the  
13 intermediate switching point provider/owner  
14 may be.

15 Both conditions are required. It  
16 must be sent and it must be preserved in  
17 order for you to know who owns the switch,  
18 not who perhaps is the carrier.

19 Q Are you familiar with the concept  
20 of unbundled switching?

21 A Yes. Unbundled switching is where  
22 a CLEC could procure the use of the switching

1 assets on a unit for a specific technical  
2 basis.

3 Q In a situation where a CLEC, say,  
4 provides service by leasing an incumbent LEX  
5 switch and providing service using that  
6 switch, whose identity would be revealed by  
7 the SS7 signaling as the identity of the  
8 switch owner?

9 A According to the standards in the  
10 industry, the switch facility itself is  
11 identified by the six digit code that should  
12 be transmitted. That would be the owner.

13 Let's say, I believe it is true  
14 that MCI is procuring unbundled switching  
15 from the Bell Atlantic area in New York, the  
16 identity of the switch would be Bell Atlantic  
17 no matter what customer's line number was  
18 delivered through that switch as an  
19 originating point.

20 Q Is that problem that you just  
21 described, the absence of, if you will, the  
22 correct identification of the carrier, is

1 that a problem that AT&T can solve on its  
2 own?

3 A There's nothing -- there's neither  
4 an amount of time or money that I think I  
5 could say could take place in AT&T's own  
6 network or within our development that would  
7 allow us to know who is using someone else's  
8 switch. I am blind to what they are doing in  
9 their network unless they have provided me  
10 with information that is not there today.  
11 Certainly not in signaling.

12 Q Now, in situations where you're not  
13 using unbundled switching, so you're a  
14 facilities based switch provider and the  
15 signaling is provided. I just want to make  
16 sure I've understood your prior testimony.  
17 Does AT&T today consult that information for  
18 the purposes of routing the call?

19 A AT&T doesn't use the originating  
20 ANI and/or any of its signaled information  
21 for the purpose of routing the call. If we  
22 receive it, we use it for recording purposes

1 so billing can take place more affectively.

2 Q Now, what about -- I'm sorry about  
3 that. Could you please briefly describe what  
4 CARE records are?

5 A CARE records are Customer Account  
6 Record Exchange processed from a perspective  
7 in the system. It allows access providers or  
8 local carriers to transmit to interexchange  
9 carriers the identify of an account which is  
10 now being provided by that carrier. So it  
11 provides the name and the telephone number  
12 and the identity of the originating service  
13 provider that's now saying, here. This is an  
14 account I am now supporting for you.

15 Q So could AT&T use CARE records to  
16 associate particular phone numbers with  
17 particular CLECs?

18 A In the network?

19 Q No, I'm just asking whether the  
20 information is provided.

21 A The information is in those  
22 records.

1 Q With respect to what types of  
2 customers is that information obtained?

3 A It is obtained only -- or AT&T only  
4 receives customer CARE records for AT&T  
5 pre-subscribed account. We would not receive  
6 information about all the other interexchange  
7 carriers' accounts. That would be  
8 competitively difficult for everyone.  
9 Ourselves included.

10 Q Now, turning now in terms of AT&T's  
11 ability to use whatever information it has to  
12 actually block a call, can AT&T today block  
13 calls from non-AT&T pre-subscribed customers  
14 by CLEC identity?

15 A No. Since we don't possess clear  
16 indication or information about who the CLEC  
17 owner of a customer who's not even recognized  
18 as my own and my network doesn't have any  
19 capability in place today to perform function  
20 that says, well, based on some information I  
21 don't have, prevent the processing of this  
22 call. So I cannot block that call today.

1 Q So if roughly say half of MGC's end  
2 user customers were not pre-subscribed to  
3 AT&T.

4 A I have no knowledge.

5 Q No ability to block.

6 A No ability to block.

7 Q Now, with respect to customers that  
8 are pre-subscribed to AT&T, could you tell me  
9 please with respect to -- let's go through  
10 particular types of traffic. What AT&T would  
11 today have to do in its system in order to  
12 block the traffic by the CLEC identity? Why  
13 don't you start with one plus traffic?

14 A To be able to technically block one  
15 plus traffic from MGC or any CLEC, as I  
16 stated earlier, you must know the identity of  
17 the CLEC. So absent any other means, I have  
18 to be able to obtain perhaps the CARE record,  
19 their billing inquiries or any process made  
20 available to me, the identity of those  
21 accounts that belong to MGC.

22 So I need a system or I need to

1 modify systems I have to be able to extract  
2 that information, to be able to capture it  
3 and then be able to take the captured  
4 information and provision it into a system  
5 that will then -- I'll refer to it as  
6 populate a network accessible database. Put  
7 that information in a place I can get to it  
8 in real time at the time I'm handling the  
9 phone call.

10 Q Now, in today's network without the  
11 existence of those systems that you said you  
12 might develop, in today's network, what would  
13 AT&T have to do in order to process that  
14 information from the CARE records and use it  
15 to block calls?

16 A In today's network, I would have to  
17 manually intervene in existing processes,  
18 extract it manually. I would have to have  
19 people find the information and perhaps dump  
20 it out of the system. I would then have to  
21 have them enter that information through a  
22 manual process to put it into a system

1 perhaps capable of blocking some of the  
2 traffic. This is important. We're talking  
3 now about one plus traffic only.

4 Q Right. Only one plus for now.

5 A I would have to take any business  
6 account, presumably I would know it was a  
7 business account, extract the same ANI out of  
8 any database that says this is a business  
9 account so that a call from that station did  
10 not avoid bypass or receive differential  
11 treatment because different services evoke  
12 different features. I have to turn the call  
13 into a basic call.

14 I then need to populate any  
15 database we have from a billing perspective  
16 to each individual ANI for any given account  
17 so that as a basic call I would query from my  
18 network into a database that restricts from a  
19 billing perspective calls that we do not  
20 allow.

21 Q But today you're saying in today's  
22 world that would have to be done manually.

1           A     In today's world that would be  
2 manually.

3           Q     Line by line.

4           A     That would be manually line by  
5 line.

6           Q     How about zero plus traffic?

7           A     Zero plus traffic from --

8           Q     Zero plus traffic from AT&T  
9 pre-subscribed customers. I think that's  
10 what we're talking about.

11          A     Zero plus traffic from AT&T  
12 pre-subscribed customers. In today's world,  
13 because, one, as I've indicated, we're in a  
14 five year OSPS which is a 4e switch  
15 environment.

16                    One, I consult different databases  
17 for the processing of calls. If you said  
18 today block, I would need to use the same  
19 ANIs that had been obtained let's say from a  
20 one plus call. I would need to enter those  
21 ANIs into yet another database.

22                    In fact, in this case, it's really

1 a data table within our switch, most likely  
2 still a manual process line by line. In  
3 order to indicate that calls would not be  
4 billed from those lines through our switch.

5           The problem is that that data table  
6 is neither infinitely large and it is used  
7 for service applications and functions today.  
8 So I could easily and most likely run out of  
9 space. In fact, I would at some point no  
10 longer be able to put in enough data without  
11 changing the system today to be able to  
12 handle calls. So I couldn't stop the calls  
13 because I had clearly exceeded data tables  
14 that were never designed for this type of  
15 function.

16           Q       Now, what about 1YY or 1-800 type  
17 traffic?

18           A       The other major class of  
19 calls, 800. 800 service, again, is usually  
20 treated right up front as a very different  
21 class of service. It's not billed to the  
22 originating line of the customer. The

1 implication of where the call comes from is  
2 virtually of no significance in terms of  
3 should you allow the call or not.

4           Therefore, I have no way of saying  
5 stop these calls. There is a capability in  
6 an advance 800 which people have asked me  
7 about. Couldn't you just put net capability  
8 is to be able to direct calls differentially  
9 that they originate from a particular area.  
10 I've been asked could I put all these ANIs in  
11 those profiles? Since there are millions of  
12 profiles and each profile is independent and  
13 to insert a check who is the carrier of this  
14 call and is routing supported? Again, you  
15 need to know that before you can decide to  
16 execute on it. These switches have software  
17 today that does not perform a function of  
18 that type.

19           They need to be modified if I'm  
20 told make that happen. Both the 4e switch  
21 and the 5e switch would have to be modified  
22 since we're engaged in the acquisition of new

1 switch vendors and technologies. Those  
2 technologies would have to have comparable  
3 and appropriate developments placed upon them  
4 as a requirement to make them usable in this  
5 context.

6           The support systems of the switches  
7 would need to be modified appropriate to  
8 whatever the changes and control parameters  
9 that you would in some sense utilize to  
10 manage the switches that have to be changed.  
11 The provisions and processes that I have to  
12 still obtain data from some place. I still  
13 have to obtain -- provide storage of data  
14 that's necessary to do this.

15           So development in virtually all  
16 parts of my network would be required in  
17 order to intervene in this manner. That's  
18 the development here. My operations  
19 organizations would have to be created or  
20 perhaps an operation organization would have  
21 to be created to manage the processes and  
22 capabilities. Someone has to do day-to-day

1 all the things necessary to make sure that  
2 the data is flowing, that it's correct, that  
3 it's functioning properly and it's being used  
4 properly.

5 I also need to arrange for the  
6 systems like billing and customer care to be  
7 able to interact appropriately with any new  
8 system or new process that's put in place  
9 because this has to be viewed as an  
10 integrated kind of function. You can't have  
11 things done independently that would cause  
12 either conflict or ambiguity in the switch.

13 You need pure logic to make things  
14 work flawlessly which is an aspect of why  
15 there's a lot of development that would be  
16 required. You have to touch the system that  
17 this type of processing will impact directly  
18 or indirectly.

19 Q Now, is it one of your normal  
20 functions, when you describe your job  
21 functions before, is it one of your normal  
22 functions within AT&T to prepare estimates of

1 the time and cost associated with undertaking  
2 network modifications for use by AT&T's  
3 business units?

4 A Yes, that is one of the principle  
5 job functions my organization, my own  
6 district, is responsible for. We receive  
7 requests from our internal product  
8 organization for the types of feature or the  
9 services they wish to be able to offer, new  
10 things that they cannot do today without some  
11 change in how things work. Part of that  
12 responsibility is, one, to determine how  
13 would you go about best arriving at that  
14 functionality? The purpose is ultimately to  
15 the business in a sane and economic and  
16 affordable manner.

17 One of my responsibilities to them  
18 is to determine what are the costs of any  
19 particular way or option of doing business.  
20 How long will it take to deliver that?  
21 Ultimately, working with -- should we decide  
22 to go forward, working with and managing the

1 deliveries from the vendors of their  
2 constituent components of develop this on a  
3 Lucent technology system or develop this on  
4 an IBM system.

5 Q Based on your experience in  
6 designing and procuring these kinds of  
7 network modifications, what do you estimate  
8 would cause AT&T to implement the types of  
9 network modifications you described earlier?

10 A Because of the impact on the  
11 switches, the data network and support  
12 processes, I think it is relatively safe to  
13 say that the starting price would be  
14 between \$25 and \$35 million. This is based  
15 on requirements generated in a fairly small  
16 amount of time without any extensive research  
17 into each and every system or technology or  
18 operation that would be affected by this.

19 It's a significant development.  
20 You need a system that can be very large  
21 because of the volume of traffic we're  
22 talking about and fast and usable. By

1 anything or any system out there that has to  
2 rely on it. It must be reliable.

3 Q The \$25 to \$35 million is your  
4 estimate of the development expense?

5 A The development. The price of  
6 procuring from vendors or even internal  
7 organizations.

8 Q Now, how about in terms of network  
9 operations? Would there be added costs  
10 there?

11 A The intervention of a process  
12 that's going to validate or check or verify  
13 whether or not an originating station would  
14 be usable is going to impose an interruption,  
15 a delay of the handling of calls. It may be  
16 a small amount of time from an individual  
17 call perspective, half a second or a second.

18 But if you start counting up  
19 hundreds of billions of calls, it's a large  
20 amount of time. That turns into capacity  
21 needs, the ability to have a big enough cup  
22 to handle the water you want. Which means