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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

January 13, 1998

Ms. Magalie R. Salas, Secretary
Federal Communications Commission
Washington, DC 20554

Re: CC Docket No. 96-128/ NSD-L-98-147 (Flex-ANI)

Dear Ms. Salas:

Attached is a copy of the letter sent to the Chief of the Network Services Division (NSD) on January 8, 1999 in response to the NSD letter of December 29, 1998 seeking additional information in the above matter.

Very truly yours,

F. Gordon Maxson
Director – Regulatory Affairs

Attachment: January 8, 1999 letter

C: ITS
MCI WorldCom (Alan Buzacott)

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JAN 08 1999

Common Carrier Bureau
Network Service Division
Office of the Chief

January 8, 1999

Ms. Anna Gomez, Chief
Network Services Division
Common Carrier Bureau
Federal Communications Commission
Washington, DC 20554

Re: CC Docket No. 96-128

Dear Ms. Gomez:

This is in response to your letter of December 29, 1998 to Ms. Gail Polivy seeking further information concerning GTE's Petition for Extension of Waiver as it deals with the implementation of Flex-ANI in the above docket.

**Question 1.** Vendor performance generally. The petitioners indicate that vendor performance is beyond their control.

**Part A.** What performance deadline commitments did the petitioners and their vendors initially contractually agree upon to meet the October 7, 1998 deadline? When were these agreements negotiated and finalized?

RESPONSE:

At the outset, GTE wishes to note that it uses several different switch vendors, all of whom were able to meet the Flex-ANI deadline except Lucent. Furthermore, it should be understood that the Lucent Flex-ANI software is being designed for all industry users of the 5ESS switch technology, and is not being custom designed for exclusive use by GTE. Under GTE's normal business practices, contracts with vendors such as Lucent are not required unless the software is custom designed for GTE with GTE providing a detailed definition of functionality of the customized software. GTE does not contract for commercial software features such as Flex-



A part of GTE Corporation

ANI patches from a vendor until the software is commercially available. The contractual agreement at time of product availability then is only for pricing and performance.

In late February 1998, GTE requested information on the Flex-ANI software requirements identified in Feature Specification Document 99-CP-4847 and 99-5E-4868. These documents provided the detailed description of the feature as defined by the Industry. The original date of the draft version of the Feature Document is March 19, 1998. Lucent quoted preliminary pricing and availability in an e-mail to GTE dated March 30, 1998. In that electronic letter the earliest availability given by Lucent was March 1999. This date is within a normal design interval for a new switch feature. Lucent provides a software generic release approximately once each year for the 5ESS switch.

Again, there was no contractual agreement established between GTE and Lucent at any time in 1998 for Flex-ANI software.

**Part B.** What changes in the performance deadline commitments did the petitioners attempt to reach after each of the three waiver extensions granted to date? When were these changes negotiated and finalized?

**RESPONSE:**

After receiving the March 1999 feature availability date from Lucent, GTE followed up with the Lucent/GTE account team and the Lucent product manager. GTE pointed out that the March 1999 date did not meet the FCC Flex-ANI compliance mandate of December 31, 1998. Three conference calls were held in the March through June timeframe trying to obtain 1998 software availability from Lucent. Lucent stood firm on the March 1999 date. On May 22, 1998 SBC

filed for a Flex-ANI waiver detailing its similar tandem problem.[1] In its order of June 10, 1998 the Commission declined to extend the date beyond December 31, 1998.[2] GTE again contacted Lucent to request a review of this feature and again pointed out the firm date of December 31, 1998. After Lucent again refused to improve the software feature schedule and stated that they could not improve the March 1999 date, GTE requested a written confirmation. Lucent's reply is the letter dated September 14, 1998. which was attached to GTE's Petition For Extension of Waiver as Exhibit 1.

**Part C.** What changes in the performance deadline commitments were actually agreed upon after each of the extensions, and why were they not adequate to meet the petitioners' legal obligations?

**RESPONSE:**

No changes were agreed upon as Lucent never agreed to change the product delivery date.

**Part D.** What penalties against vendors were agreed upon for non-performance?

**RESPONSE:**

Since there was no contractual agreement made with Lucent to deliver a product prior to its stated delivery date of March, 1999, there were no non-performance agreements.

**Question 2.** Verified statements from vendors. The petitions did not include verified statements from their vendors to substantiate or explain the failure to meet the December 31, 1998 deadline.

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[1] *Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996*, Petition To Extend Limited Waiver To Implement FLEX-ANI, CC Docket No. 96-128, filed May 22 1998.

[2] *Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996*, SBC Request to Extend Limited Waiver of Coding Digit Requirement, Memorandum Opinion and Order, CC Docket No. 96-128, DA 98-1101, released June 10 1998.

**Part A.** What work plans did the vendors implement initially and after each extension of the waiver deadlines?

**RESPONSE:**

GTE has already provided the only written statement from Lucent in its possession. This is in the form of a letter under Lucent Technology letter head from the Lucent/GTE account team representative quoting the March, 1999 date (see Exhibit 1 in GTE's Petition For Extension Of Waiver Filing). GTE has no other knowledge of Lucent's work plans other than statements that Lucent could not deliver the software in 1998 regardless of estimated costs or a price that would be assessed to GTE for the software product.

**Part B.** Why were the work plans not adequate to meet the deadlines?

**RESPONSE:**

Following receipt of the December 29, 1998 letter, GTE requested that Lucent provide more information to support the 1999 completion date. Lucent has stated that the Flex-ANI software work plan is very close to schedule and should be deliverable to all LECs on April 7, 1999. GTE has no additional information on Lucent work plans.

**Part C.** What work plans are the vendors currently implementing; at what stages are they now; and what are the completion dates for the upcoming stages?

**RESPONSE:**

As noted in Part B. above, Lucent is now quoting April 7, 1999 as the availability date for the Flex-ANI software for the 5ESS release 5E11.

**Question 3, GTE specific question.**

The GTE petition states on page 3 that Lucent advised GTE in September 1998 that it would not have the required Flex-ANI software upgrade until March 1999. (1) When did GTE ask Lucent for this information? (2) What transpired subsequently, before GTE filed its waiver petition in December? The GTE petition also states at page 3 that because GTE has approximately 5,000 end offices it elected for legitimate cost reasons to deploy Flex-ANI software at the tandem office level. (3) Could GTE have implemented Flex-ANI earlier at end offices? (4) By what date and with what cost difference compared to tandem implementation?

**(The above paragraph includes several questions. GTE will answer in two parts.)**

**RESPONSE** to questions (1) and (2):

GTE requested the letter (filed as Exhibit 1 in GTE's waiver extension) from Lucent in September, 1998 after it was clear that the Lucent 5ESS software would not be delivered in 1998. The time between March 1998 and December 1998 was spent evaluating alternatives for the 5ESS Tandem switches that represent 0.41% of GTE's waiver request. GTE continued to deliberate and explore all possible "work around" possibilities to solve the Flex-ANI puzzle for the remaining 4.75% non-compliant payphones through October and November. When it became clear that GTE could not find a timely method of completion, it filed a Petition For Extension Of Waiver as soon as possible thereafter in early December in an effort to alert the FCC to the non-compliant issues and to provide accurate information on GTE's Flex-ANI implementation status.

**RESPONSE** to questions (3) and (4):

**Could GTE have implemented Flex-ANI earlier at end offices?**

Prior to the release of the FCC's March 9, 1998, order, GTE was investigating many methods of identifying calls from payphones for use in determining the proper compensation due payphone providers. The March 9, 1998 order, for the first time, clearly specified Flex-ANI as the

preferred solution to the payphone call identification problem.[3] After that date, the methods of implementation of Flex-ANI at all switching levels from the Tandem to the Base Unit/and related end offices were explored.[4] GTE noted early on that the only way to make each Base unit switch stand alone in the provision of Flex-ANI digits was to install Service Switching Point (SSP) functionality into all the Base Units.[5]

Because GTE's network contains certain types of switch technology that would not readily accept the SSP conversion based upon either economic or technical considerations, many of the Base Unit switches would have had to have been completely changed out. With that knowledge, cost and time were certainly driving factors that led GTE to explore other alternatives.[6] The alternative chosen will be discussed later in these responses.

**By what date and with what cost difference compared tandem implementation?**

GTE studied the end office (SSP) solution up through May of 1998. It became readily apparent that the cost difference was naturally higher for the end office solution based simply on the fact that not only would all 1,600 base unit switches require Flex-ANI software upgrades, but approximately 500 of those offices, from an economic and network configuration and viability

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[3] *Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996*, Memorandum Opinion and Order, CC Docket No. 96-128, DA 98-481, released March 9 1998.

[4] A Base Unit switch is a switch in which the actual computer logic resides for the switching functions. These switches are also called "Host" switches. Each one of these in turn then services the switching logic needs of any number of "remote switching units" (RSU) switch locations located throughout the GTE system (5,000+ exchange end offices). Each telephone exchange is served by either a Base Unit "Host" or a remote switch working off of a Base Unit.

[5] SSP is a feature that uses the Common Channel Signaling System 7 network to perform data base queries and to route traffic based on the data response.

perspective, could not accept the mentioned SSP functionality upgrade. These latter switches would have had to have been either extensively modified or replaced at a cost of about $250,000 per switch over and above Flex-ANI costs and over a time frame that would not have met the December 31, 1998 order compliance target. Since GTE only has 111 Access tandems, the cost to install only the Flex-ANI software in those tandems and not have to modify or change out any base units to make them SSP stand alone offices was the more prudent business decision both in terms of time and ultimately cost to the end consumer.

Before continuing to explain further the second part of the question, GTE would like to take the opportunity to clarify that it did indeed upgrade 105 out of 111 Access tandems, plus all 1,600+ Base Unit switches, and the related approximately 5,000 exchange end offices serving behind those Base Unit switches with the proper flex-ANI software and functionality in 1998 as ordered. However, and these are the precise reasons for the waiver extension petition, the GTE system wide installed Flex-ANI capability will not function properly in 552 of the 1,600 base units and their related exchange end offices for the two reasons stated in our petition. Again, the two extenuating circumstances were:

(1) the lack of software for Lucent technology switches (6 of GTE's Access tandems serving 17 base unit offices, Exhibit 2 in the petition); and

(2) the fact that GTE has 535 Base Unit offices which subtend non-GTE owned, non-Flex-ANI capable tandems. The following table depicts the numbers of switches and payphones that fall into the three network configurations:

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[6] It would not have been possible for GTE to initiate potentially over 5,000 switch replacements after March 1998 and meet a 12/31/98 compliance date for Flex-ANI.

| Description of serving arrangement | Number of Access Tandems | Number of Base Unit offices served | Number of "smart" payphones served | Number of all other payphones served | Percent of total payphones served | Flex-ANI capable |
|---|---|---|---|---|---|---|
| GTE owned Access Tandems and Base Unit/End Offices | 105 | 1,070 | 72,425 | 110,257 | 95.48% | Yes |
| Non-GTE OWNED Access Tandems serving GTE owned Base Unit/End Offices | 123 | 535 | 7,864 | - | 4.11% | No |
| GTE owned Access Tandems Employing Lucent Technology | 6 | 17 | 792 | - | 0.41 | No |
| TOTALS | 234 | 1,622 | 81,081 | 110,257 | 100% | N/A |

As stated in the GTE petition and as depicted in the table above, the Non-GTE tandem problem accounts for about 4.11% of the non-compliant payphones while the vendor (Lucent) related issue accounts for a minor 0.41% of the non-compliant payphones. With that, GTE will address each of these two separately. As stated in GTE's petition, and as shown in the table, the number of "smart" COCOT payphones affected are 8,656. Even though per call compensation is not available to these few payphones (8,656 out of 191,338), they will continue to receive per phone compensation from the IXCs for dial around calls in place of the per call compensation which would occur if Flex-ANI were in place.

## NON-GTE OWNED ACCESS TANDEMS SERVING GTE SWITCHES

The non-GTE owned tandem issue requires a lengthy clarification and explanation for proper understanding. GTE was involved throughout 1998 in industry implementation forums discussing ways to implement Flex-ANI both GTE system and industry wide. As previously stated, GTE elected to solve the Flex-ANI issue at the tandem and subsequently base unit level.[7] However, this election did include the provisioning of certain flex-ANI software features at all base units and served end offices as well. GTE should clarify that in 1998 some form of ALL available vendor Flex-ANI software patches for all technologies was purchased and installed by GTE. Flex-ANI software was installed in all base unit offices in 1998, but as mentioned above will not function properly in all instances if the serving tandem is not Flex-ANI capable as well. GTE elected to make all the 111 tandems which it owns Flex-ANI capable so as to serve not only its own subtending end offices but those other LEC end offices which GTE does not own.

GTE, from a national network perspective, expected that all LECs that provide tandem switching for subtending offices would install the proper Flex-ANI software at the tandem level so that the required call screening function would be available for all end offices absent the need for expensive and sometimes unnecessary SSP functionality in each end office. As it turns out, and this is the pivotal issue at hand, several LECs did not interpret the March 9, 1998 order to require them to provide such capability, given their own end office technology. Thus, several LECs did not take this implementation approach.

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[7] Industry standard network efficiencies and design have dictated that certain Base Unit/end office switches are routed to a tandem that is the most practical for traffic volumes and switch size regardless of ownership. Because of these design

This strategy, however, is only a viable option in the Flex-ANI scenario if the subtending end offices are all of the technology necessary to be able to do the screening and routing function (via SSP functionality) prior to routing traffic on through a tandem. As mentioned, but to reiterate, GTE determined that neither the required capital to make all of its end offices stand-alone with SSP functionality, nor the time to meet the December 31st implementation deadline if we went that route, were available or a prudent option to pursue.

This "end office capable" strategy adopted by several other LECs will not work for all subtending offices if the subtending LEC deploys non-SSP functional end office technology behind non-capable tandems. In GTE's case all of its DMS10s (Nortel) which route through GTE Flex-ANI upgraded tandems will function properly. However, and this is key, DMS10 end offices that do have the proper Flex-ANI software will not function properly if that office subtends a non-capable non-GTE access tandem. In addition, GTE has determined that it is not a viable alternative to equip a small capacity switch such as the DMS10 with SSP functionality.

This criteria indicates that either the DMS10 has to subtend a tandem which is Flex-ANI capable or be replaced by another switch type which could then either be made SSP capable or subtend a capable tandem to gain the needed Flex-ANI functionality. Referring to Exhibit 3 in GTE's Petition For Extension Of Waiver filing, of the 535 GTE subtending base unit offices, 323 employ DMS10 technology. If these offices subtend Nortel technology (which many do in the form of DMS200s) and those Nortel tandems have not received Flex-ANI upgrades, GTE's end offices will not and can not complete the Flex-ANI function. Note that on GTE's Exhibit 3 from

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characteristics, GTE is both a tandem provider for some other LEC's end offices and has subtending base unit and end offices to tandems which GTE does not own.

the Petition, the document lists 123 RBOC / ILEC tandems. Of these, 88 of those tandems have at least one or more subtending DMS10 equipped GTE base unit/end offices.

A replacement effort for such a large number of end offices is not a financially sound decision. It is estimated by GTE that the 88 non-GTE owned tandems with subtending GTE DMS10 end offices could be upgraded at a cost of about $50,000 per tandem, or about $4.4 million. If the tandems were not upgraded for Flex-ANI capability, the GTE switches would have to be changed out and the 323 new switches would then have to be made SSP and Flex-ANI capable. GTE estimates this cost at about $250,000 per switch (average line size of 1,500 with switch costs of $200,000 and SSP functionality at $50,000) or about $80.8 million for the conversion. Clearly in the best interests of consumers and GTE, the answer is to upgrade the tandems. Although the remaining 212 subtending end offices (535 – 323) are not DMS10 technology, they face similar problems as described following.

**THE LUCENT SOFTWARE ISSUE**

Obviously those end offices subtending Lucent technology tandems (31 of the 123 indicated on previously mentioned Exhibit 3)) will not function until approximately mid-1999 when the software becomes available and then, only if the tandem owner has purchased and installed the planned Lucent software package. The economics here is similar. Thirty-one tandems could be upgraded for approximately $25,000 each (GTE's estimates for Lucent upgrade is less expensive than Nortel estimate) or about $775,000. To make the end offices capable on a stand-alone basis, however, the 212 base units would require the additional previously mentioned $50,000 each for SSP capability or a total of $10.6 million.

The Lucent technology problem will be fixed in GTE's tandems in mid-1999 when the vendor provides the software. The same fix will also be available in 1999 to those Lucent tandems that GTE does not own. However, GTE has no authority to require the new software to be deployed in the non-owned tandems and must continue the dialogue, which was started early last year, with the tandem owners to find a mutually acceptable method to get the tandems upgraded to then solve the downstream subtending problems that were alluded to above.

**QUESTION 3 SUMMARY**

GTE can not overemphasize the amount of thinking and planning and option review that went into its Flex-ANI compliance effort. If a technologically possible/feasible solution was available, it was deployed. GTE continues to seek solutions for the small number of non-compliant payphones in its serving areas subtending other LEC tandems. The non-compliant payphones which remain are a result of lack of a Flex-ANI capability, could not be justified because of the expense of and timing to replace end office switches, or were not within GTE's control to decide.

GTE switches, as noted above, subtend 123 Tandem switches owned by fifteen (15) other LECs. Exhibit 3 of GTE's Petition lists these other LECs alphabetically. GTE has been in contact and working with representatives from each of these other companies since as early as March of last year to ascertain where their individual access tandem technology/capability stood. Some of the LECs have indicated that they might readily make their tandems Flex-ANI capable over the next few months and if so, GTE's implementation will be complete in those areas. Some however, have stated quite candidly that they will not upgrade their tandems since all of their own end offices are SSP and Flex-ANI capable on a stand alone basis and any functionality problem is the problem of the subtending office.

GTE continues to work on mutually acceptable solutions with the other LECs. Our extended waiver requested date of June 30, 1999 is predicated on the hope that all fifteen of the other LECs will agree with GTE's stance on Tandem provisioning. If the LECs agree, all of GTE's Flex-ANI issues can be solved by June of 1999. GTE believes that an industry expenditure of approximately $5.2 million to upgrade the aforementioned LEC Tandems versus a cost to GTE of $91.4 million is very clearly more prudent from a business standpoint, a consumer standpoint and an overall public interest standpoint. GTE is willing to work with the other LECs both from a human resource and a financial assistance standpoint to accomplish full Flex-ANI compliance.

The difficulty GTE is experiencing in negotiating tandem upgrades of non-GTE tandems is due to a difference in interpretation of the FCC order as to whether all LECs have a responsibility to provide for Flex-ANI capability in tandems that serve other LEC's subtending switches. GTE designed its tandem Flex-ANI strategy to accommodate all subtending end offices, either GTE's or those owned by others. GTE strongly suggests that all industry tandems be made fully Flex-ANI capable as well.

Please let me know if additional information is needed for your consideration of GTE's petition for an extension of the Flex-ANI deadline.

Very truly yours,

F. Gordon Maxson
Director-Regulatory Affairs