

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

_____	)	
In the Matter of	)	
	)	
Telecommunications Relay Services,	)	CC Docket No. 98-67
and Speech-to-Speech Services for	)	
Individuals with Hearing and Speech	)	
	)	CG Docket No. 03-123
_____	)	

**REPLY COMMENTS OF ULTRATEC, INC.**

Pamela Y. Holmes, Director  
Consumer & Regulatory Affairs  
Ultratec, Inc.  
450 Science Drive  
Madison, WI 53711

(608) 238-5400 TTY/Voice/CapTel

October 28, 2003

## Table of Contents

SUMMARY .....	iii
I. Introduction .....	1
II. Three-Way Calling is Presently Not Technically Feasible with CapTel Technology .....	2
III. Verizon’s Proposed Modification of “An Appropriate PSAP” Should be Adopted .....	4
IV. AT&T’s Suggestion For the Establishment of a Single, Nationwide PSAP Database Should Be Explored .....	6
V. Conclusion .....	7

## SUMMARY

As the creator of the Captioned Telephone (CapTel), Ultratec has strived to create a relay service that is functionally equivalent to our nation's telephone network for voice users. Ultratec supports AT&T's and Verizon's Petitions for Reconsideration in a manner that will not compromise this goal of functional equivalency. First, Ultratec supports AT&T's proposed waiver of the three-way calling feature to the extent that such waiver pertains to the provision of CapTel. The provision of three way calling is not technically feasible through CapTel technology. Although a waiver will relieve CapTel communication assistants of the obligation to initiate three-way calls, even with a waiver, CapTel users are now, and will continue to be able to participate in such calls so long as another party initiates the three-way set up.

Ultratec also urges the FCC to revise its recently adopted mandates for the handling of emergency calls. Specifically, Ultratec requests the FCC to adopt Verizon's requested modification of the definition of "an appropriate PSAP" to include either the PSAP that would have been reached directly by dialing 911 or a PSAP that can succeed in dispatching emergency assistance expeditiously. Finally, Ultratec also supports proposals for a national database for the routing of emergency TRS calls; and a national outreach campaign to educate TRS callers on how best to make emergency 911 calls.



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

	)	
In the Matter of	)	
	)	
Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech	)	CC Docket No. 98-67
	)	
	)	CG Docket No. 03-123
	)	

**REPLY COMMENTS OF ULTRATEC, INC.**

**I. Introduction**

Ultratec, Inc. hereby submits reply comments in response to AT&T’s Petition for Limited Reconsideration and For Waiver and Verizon’s Petition for Reconsideration in the above referenced proceeding. These petitions request modification of certain requirements adopted by the Commission in its Second Improved Telecommunications Relay Services (TRS) Order, released on June 17, 2003.<sup>1</sup> Among other things, that Order provided new mandates for the handling of emergency calls made to TRS centers and created a new requirement for TRS providers to offer three-way calling. In these comments, Ultratec supports (1) AT&T’s proposed waiver of the three-way calling feature to the extent that such waiver pertains to the provision of CapTel; (2) Verizon’s requested modification of the definition of “an appropriate PSAP;” (3) proposals to create a national database for the routing of emergency TRS calls; and (4) a national outreach campaign to educate TRS callers about how best to make emergency 911 calls.

---

<sup>1</sup> *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities: Americans with Disabilities Act of 1990*, Second Report and Order, Order on Reconsideration and Notice of Proposed Rulemaking (“Second Improved TRS Order”), CC Docket No. 98-67,CG Docket No. 03-123, FCC 03-112, 18 FCC Rcd 12379, released June 17, 2003 (“June 17 Order”).

As the creator of the Captioned Telephone (CapTel) technology, Ultratec is engaged in ongoing efforts to review, evaluate and incorporate new capabilities to make this enhanced VCO technology as functionally equivalent to voice calls as is technically possible. Our purpose in introducing CapTel to the market has been to bring TRS Voice Carry Over (VCO) to a whole new level of service for relay consumers. To this end, we agree with comments submitted by a coalition of six national consumer organizations (in response to the Notice of Proposed Rulemaking accompanying the FCC's Second Improved TRS Order) that urged the Commission to "require that TRS users have access to the full range of telecommunications features unless a particular feature is not technically feasible."<sup>2</sup> The coalition recommended that in determining whether a feature is feasible, the Commission should consider "whether the potential barriers are technical or whether TRS providers require additional information from LECs to use the feature."<sup>3</sup> We agree, and it is with this in mind that we offer our support for the limited requests for reconsideration or waivers discussed below.

## II. Three-Way Calling is Presently Not Technically Feasible with CapTel Technology

The FCC's Second Improved TRS Order directs TRS providers to offer three-way calling by February 24, 2004. AT&T has requested that the Commission waive that deadline to allow additional time for the Commission to resolve a number of three-way calling issues. AT&T points out that traditionally "three-way calls are established by the end user(s) using either a LEC-provided custom calling service ("CCS") feature or by bridging together two lines via customer terminal equipment."<sup>4</sup> Similarly, Sprint notes that it can already offer three-way calling capability, so long as these calls are set up at the callers' premises using the

---

<sup>2</sup> Reply Comments of Telecommunications for the Deaf, Inc., American Association of People with Disabilities, National Association of the Deaf, Deaf & Hard of Hearing Consumer Advocacy Network, Association of Late-Deafened Adults, and Self Help for Hard of Hearing People (October 9, 2003) at 7.

<sup>3</sup> *Id* at 7.

<sup>4</sup> AT&T Petition For Limited Reconsideration and For Waiver ("AT&T Petition") (September 24, 2003) at 8.

hook-flash function on their phones or the three-way custom calling feature provided by their local telephone company.<sup>5</sup>

As noted by Sprint, it is not technically feasible to support three-way calling using CapTel technology at this time.<sup>6</sup> Sprint explains that the hook-flash capability needed for this type of calling cannot be used in captioning mode and that three-way calling cannot be set-up at the relay centers that provide CapTel services. We agree, and support Sprint's request for a permanent waiver of the three-way calling feature for CapTel providers.

The CapTel VCO service uses simultaneous voice and data protocol based on the V.32 bis standard.<sup>7</sup> This results in CapTel technology depending on a constant data connection to remain connected with the other party. During a CapTel call, if a CapTel user attempts to establish a three-way call using the hook-flash functionality, this will cause a disconnection from the other party due to the disruption in the data connection. In addition, as noted by the Commission in the CapTel Declaratory Ruling released August 1, 2003, "captioned telephone VCO service is designed so that the user directly calls the other party to the call, with the CA transparent both in the set up and during the call."<sup>8</sup> The Commission notes in a number of instances in the CapTel Declaratory Ruling the desire by consumers for the Communications Assistant ("CA") to remain "completely invisible."<sup>9</sup> Indeed, one of the most attractive features of the CapTel system is that it does not engage the CA in the set up of the call. But in order to have the benefits of this direct connect arrangement, CapTel users cannot request that CAs initiate certain specific calling features, in this instance, three-way calling.

---

<sup>5</sup> Sprint Comments (October 20, 2003) at 5; See also Hamilton Comments (October 20, 2003) at 5.

<sup>6</sup> Sprint Comments at 6, n 4.

<sup>7</sup> The Commission acknowledged this fact in its ruling authorizing reimbursement for CapTel services. *In the Matter of Telecommunications Relay Services, and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities, Declaratory Ruling* ("CapTel Declaratory Ruling"), CC Dkt 98-67, FCC 03-190 (released August 1, 2003) at ¶53.

<sup>8</sup> CapTel Declaratory Ruling at ¶48; See also CapTel Declaratory Ruling at ¶50.

<sup>9</sup> See, e.g., CapTel Declaratory Ruling at ¶49.

Although Ultratec believes that a permanent waiver of the three-way calling requirement is needed, we note that if granted, CapTel users already have, and will continue to have a number of options to participate in a conferenced or multi-participant call. So long as other parties to the call initiate the actual call set up, CapTel users may dial into or receive a call with multiple participants. In fact, CapTel users currently are participating in webcast calls, conference calls, and three-way calls with great success. The only restriction to CapTel users is they cannot set up three-way calls themselves. Insofar as CapTel users may join a three-way call either by dialing a number to join the call or by having other parties call them, granting a waiver of the requirement for CapTel CAs to initiate three-way calling will not impose a hardship on CapTel users.

### III. Verizon's Proposed Modification of "An Appropriate PSAP" Should Be Adopted

In its Second Improved TRS Order, the FCC clarified its rules on the handling of emergencies through relay services to require that emergency calls be routed to an appropriate PSAP.<sup>10</sup> The Commission then defined the "appropriate PSAP" as the one that would have been reached had the TRS caller made the call directly to 911. Verizon has now come forward, supported by several other parties, to request that the Commission modify the definition of "an appropriate PSAP" to be "*either a PSAP that the caller would have reached if he had dialed 911 directly, or a PSAP that is capable of enabling the dispatch of emergency services to the caller in an expeditious manner.*"<sup>11</sup>

Verizon notes that because 911 routing is set up at each selective router, this routing information is not in one nationwide standard or central location, but potentially hundreds of such locations. The information about which PSAP will receive a given emergency call is

---

<sup>10</sup> Second Improved TRS Order at ¶¶40-42.

<sup>11</sup> Petition for Reconsideration of Verizon ("Verizon Petition") (September 24, 2003) at 1-2. Verizon's request for a modification of this definition is supported by MCI, Sprint, and Hamilton.

accessed via these 911 selective routers and not by a database that can be read or used by TRS providers. In other words, the 911 routing information is not in a format designed to interact with TRS technology.<sup>12</sup> According to Verizon, in order to guarantee that all TRS wireline emergency calls are routed to the same PSAP that the caller would have reached had he dialed 911, TRS providers would either need to build trunks to all the 911 selective routers of all the LECs in their areas or create a system that coordinated all the databases that held information from every selective router in every local exchange area in all of their covered territories. Ultratec agrees that such a task is overwhelming, and believes that a modification of the definition is in keeping with the fact that there is no guarantee that with the existing system, the database used by TRS providers will direct calls to the exact same PSAP as would be reached by voice callers who dial 911 directly. The Commission's recognition of this fact would be consistent with accepting the limitations that third party emergency databases currently present for TRS providers.

Ultratec also agrees with Verizon and other parties to this proceeding that Verizon's proposed modification to the definition will in no way impact the expeditious handling of 911 calls placed via TRS. Verizon estimates that TRS providers can already route calls to the PSAP that would be reached directly through 911 approximately ninety percent of the time.<sup>13</sup> In addition, because many PSAPs are "hot wired" to each other, in the event that the call arrives at an incorrect PSAP, several commenters have stated that the PSAP that receives the call can "almost instantaneously" transfer the call to the PSAP that would have been reached directly.<sup>14</sup>

---

<sup>12</sup> Id. at 2-3.

<sup>13</sup> Id. at 3.

<sup>14</sup> Verizon Petition at 4; MCI Reply Comments (October 20, 2003) at 3; Sprint notes that the third party vendor that maintains its PSAP database identifies the PSAP on the basis of the caller's 10-digit number as opposed to the caller's NPA-NXX, which enables the "old" PSAP to hot wire the call to the "new" PSAP. Sprint Comments at 3.

#### IV. AT&T's Suggestion For the Establishment of a Single, Nationwide PSAP Database Should Be Explored

In its Second Improved TRS Order, the FCC created a requirement for TRS providers to update the databases that they use to route relayed emergency calls on the same schedule that PSAP routing databases are updated for calls placed by voice users to 911.<sup>15</sup> Both AT&T and Verizon, supported by several other commenters, have petitioned the FCC for reconsideration of this requirement because they say that a mandate for TRS providers to update their PSAP databases at the same time that the LECs update their selective routers or databases is not feasible.<sup>16</sup> Verizon notes that its 911 databases are virtually updated “around the clock, 7 days a week,” and that it would be quite difficult to accomplish live updates from all 911 selective router databases throughout its covered areas.<sup>17</sup>

As an alternative to a mandate for live updates to the database, AT&T has proposed, and several commenters have agreed, that a single nationwide PSAP database be jointly developed, deployed, and maintained by TRS providers.<sup>18</sup> Ultratec agrees that the FCC should explore the creation of national database for this purpose. As Hamilton points out, the creation of a single national database “would be far more efficient, less costly, less administratively burdensome, and most importantly, *more beneficial to TRS users,*” than the current system of separate and fragmented databases.<sup>19</sup> Because each TRS provider handles only an insignificant number of emergency calls at any one time, a national database would be economically efficient and result in the reduction of costs associated with the handling of

---

<sup>15</sup> Second Improved TRS Order at ¶42.

<sup>16</sup> AT&T Petition at 4; Verizon Petition at 7; MCI Reply Comments (October 20, 2003) at 2; Hamilton Comments at 2.

<sup>17</sup> Verizon Petition at 7.

<sup>18</sup> AT&T Petition at 6; Sprint Comments at 4; Hamilton Comments at 3.

<sup>19</sup> Hamilton Comments at 3 (emphasis added).

emergency calls via TRS. In addition, a national database, by pooling information from all carriers, would create efficiencies that would likely reduce the chances of erroneous routing of 911 calls.

Finally, Ultratec supports Verizon's proposal for a national outreach campaign that would instruct TTY and VCO users to dial 911 directly in the event of an emergency.<sup>20</sup> Direct calling ensures that a caller's most appropriate PSAP will always receive the caller's automatic number identification (ANI) and automatic location identification (ALI) via 911 system capabilities. With this essential information, PSAP call takers can more readily and accurately dispatch necessary emergency personnel to 911 callers.

#### V. Conclusion

Ultratec believes that granting AT&T's and Verizon's petitions to the extent discussed above is necessary at this time. Ultratec agrees with consumers that achieving a relay service that is functionally equivalent to our nation's telephone network for voice users is the paramount goal of the FCC. On occasion, however, certain features, though desirable, may not be technically feasible. Such is the case for three-way calling when applied to CapTel technology. Ultratec further urges the FCC to revise its recently adopted mandates for the handling of emergency calls. It believes that the revisions suggested by the petitioners and supported herein will not only be in keeping with the technical and economic realities of handling these calls, but will be in the best interests of consumers in the effort to achieve the most functionally equivalent handling of these calls. Ultratec thanks the Commission for the opportunity to submit these comments.

Respectfully submitted,

---

<sup>20</sup> Verizon Petition at 4.

/s/

Pamela Y. Holmes  
Director, Consumer & Regulatory Affairs  
Ultratec, Inc.  
450 Science Drive  
Madison, WI 53711  
(608) 238-5400

October 28, 2003