Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	)	
	)	
IP-Enabled Services	)	WC Docket No. 04-36
	)	
Implementation of Sections 255 and 251(a)(2) of The Communications Act of 1934, as Enacted by The Telecommunications Act of 1996: Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities	)	WT Docket No. 96-198
	)	
Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities	)	CG Docket No. 03-123
	)	
The Use of N11 Codes and Other Abbreviated Dialing Arrangements	)	CC Docket No. 92-105

REPLY COMMENTS OF VERIZON[1]

The comments filed in response to the Commission's Order and Public Notice Seeking Comment[2] confirm the Commission's conclusion that achieving a meaningful solution and an appropriate customer experience will require a joint effort by TRS operators, public safety answering points ("PSAPs"), VoIP providers and their vendors, the emergency services community and the disability community.[3] While some steps have been taken toward such a

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[1] The Verizon companies participating in this filing ("Verizon") are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

[2] *IP-Enabled Services; Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934; Telecommunications Relay Services and Speech-to-Speech Services for Individuals; The Use of N11 Codes and Other Abbreviated Dialing Arrangements,* Order and Public Notice Seeking Comment, 22 FCC Rcd 18319 (2007) *("Order and Public Notice")*.

[3] *Id.* at ¶ 17.

solution, the technical and operational challenges are complex and cannot all be resolved within six months from the effective date of the Commission's *VoIP TRS Order*.[4] Accordingly, the Commission should permit VoIP providers and TRS operators to elect to implement an interim solution in the near term, and should extend the waiver for two years to permit development of a long term solution.

1. Achieving an appropriate customer experience requires TRS operators, PSAPs, VoIP providers and their vendors, the emergency services community and the disability community to be aligned on a common solution. As the Commission noted,[5] if a caller using interconnected VoIP service dials 711 to place an emergency call and either uses a nomadic VoIP service from a location other than his or her Registered Location or uses a fixed VoIP service with a non-geographically relevant NANP number, the TRS operator may not be able to direct the call to an appropriate PSAP – even if the caller identifies his or her location. Moreover, in cases where the caller cannot communicate his or her location, the TRS operator will not know which PSAP to contact.[6]

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[4] *Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996: Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities; Telecommunications Relay Services and Speech-to-Speech Services for Individuals With Hearing and Speech Disabilities*, Report and Order, 22 FCC Rcd 11275 (2007) ("*VoIP TRS Order*").

[5] *Order and Public Notice* ¶¶ 13-14.

[6] As USTelecom explained in its petition for waiver, if a deaf or hard of hearing caller uses a TTY device connected to an interconnected VoIP service and dials 911 directly, the call will be routed through the selective router over the wireline E911 network to the PSAP that serves the caller's Registered Location, just as it would be for a hearing VoIP caller. This is true whether the customer's interconnected VoIP service is fixed or nomadic, and whether or not the customer's NANP number reflects the geographic location where the caller is located. United States Telecom Association Petition for Waiver of Certain Regulations Concerning Provision of 711 Dialing (Sept. 21, 2007) at 6.

Resolving these issues requires a coordinated effort by all parties who have a role in handling such a call. First, when the caller dials 711, the VoIP provider must have a way of determining the TRS center for the state where the caller is located rather than the one represented by the caller's NPA-NXX. Second, the TRS center must have a way of identifying the call as a VoIP call and have access to a database that can associate the caller's "foreign" NPA-NXX with the correct geographic location. Alternatively, the TRS center might receive the caller's Registered Location from the VoIP provider. One of these methods is needed to enable the TRS center to send the call to an appropriate PSAP – one that the caller would have reached if he or she had dialed 911 directly or one that is capable of enabling the dispatch of emergency services to the caller in an expeditious manner. Third, when the TRS operator completes the call to the appropriate PSAP, there must be some means of transmitting the caller's address or location to the PSAP either directly or by applying a "pseudo-ANI" to signal the ALI database to check a third party's database of Registered Location.

As the foregoing indicates, the technical and practical challenges that must be solved to make sure that a caller dialing 711 to make an emergency call reaches an appropriate PSAP are many. Moreover, they cannot be solved by any individual provider on its own. Instead, addressing these challenges will take a joint effort by TRS providers, interconnected VoIP service providers, public safety agencies and others. For these reasons, Hamilton Relay's demand that "VoIP providers supply TRS providers with a standardized mechanism for identifying the geographic location of the calling party," and that "VoIP providers must take the lead in organizing this effort,"[7] is inappropriate. Achieving a solution requires the involvement and active participation of TRS operators as much as of VoIP providers, PSAPs, and public

[7] Hamilton Relay Comments at 3.

safety officials. No single party, nor any single segment of the participants, can resolve this issue alone.

Efforts to move toward a solution have already begun. For example, Verizon has initiated discussions with third party database providers to develop the capability to route calls made by a VoIP customer dialing 711 to the appropriate relay center based on the caller's Registered Location, rather than NPA-NXX. In addition, Verizon addressed this issue on a panel at the E911 Summit hosted by the VON Coalition and NENA that included both TRS operators and providers of interconnected VoIP services.[8] The Summit raised awareness of the issues and began a dialog among various parties that have a role in achieving a solution.

2. The Commission should permit VoIP providers, TRS operators, and others to implement a joint interim solution in the near term. As an interim measure, the Commission should permit VoIP providers, if they choose, to contract with a single TRS center to handle their 711 calls for customers with non-geographically relevant phone numbers or nomadic VoIP service.[9] Under this scenario, the designated TRS center for VoIP calls would become the "relay provider that serves the state in which the [VoIP] caller is located" and the VoIP providers would, therefore, be in compliance with the Commission's definition of the "appropriate relay

[8] NENA Comments at 3-4; VON Coalition Comments at 4-5.

[9] Some providers of interconnected VoIP service may route some or all of their customers' call to 711 in the same manner that traditional wireline calls are routed over the PSTN. For example, some providers of interconnected VoIP service may not offer a nomadic service and may assign geographically relevant phone numbers to some or all of their customers. Such providers should be able to continue to route 711 calls in the same manner as calls from the PSTN. The discussion of the interim and long term solutions in these comments is intended to address calls to 711 for interconnected VoIP customers with non-geographically relevant phone numbers or nomadic VoIP service.

center."[10] If an interconnected VoIP provider chose to implement the interim solution, it would apply to all calls to 711 made by customers who either have selected a non-geographically relevant phone number or who have nomadic VoIP service (not just emergency calls, since there is no way of knowing in advance whether the call is an emergency).

There are a number of benefits from adopting this approach as an interim solution. If interconnected VoIP providers direct 711 calls from a nomadic service or a non-geographically relevant phone number to the appropriate TRS center, as defined by the Commission, it creates two issues that could affect VoIP callers using 711 whether or not the call is an emergency call. First, if a VoIP caller dials 711 and asks to make an interstate long distance call, that call may be blocked if the VoIP provider does not have a billing arrangement with an interexchange carrier that will carry the call from the TRS center to the called party. This is because without such an arrangement, the IXC may not recognize the VoIP caller as a customer and may refuse the call because it will have no way to bill for the call. Second, even if a VoIP provider sends a caller with a non-geographically relevant telephone number to the TRS center for the state where the caller is located, the TRS operator may refuse to complete an interstate long distance call because it would appear to be a "transit" call – a call where neither leg is in the same state as the relay center – even though the caller may physically be located in the state. The interim solution would address both of these issues.[11]

Under a "single provider" solution, VoIP providers and the designated TRS operators would work together to address these issues. For example, each VoIP provider would set up a

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[10] *Order and Public Notice* ¶ 9 and n. 27. The interim solution would require extending the waiver from Section 64.604(a)(4) of the Commission's Rules for the designated TRS center until a long term solution can be implemented.

[11] Interconnected VoIP calls to 711 that are routed based on NPA-NXX would not appear to be a transit call, even if the caller were physically located in another state. As a result the TRS operator would not refuse to route such calls.

unique 8XX access number to its designated TRS center and would route all VoIP 711 calls for customers who have selected a non-geographically relevant phone number or nomadic VoIP service over that access number. Each VoIP provider would enter into an arrangement with an IXC, and provide that IXC's CIC to the TRS operator for routing calls that arrive on the 8XX access number.[12] Similarly, the TRS operators would set up CIC routing to ensure that calls arriving on the 8XX trunk are completed using the VoIP providers' contracted IXC. In addition, the TRS operator would allow calls that appear to be "transit" calls from VoIP customers whose calls are routed to the center on the 8XX trunk. This would ensure that the VoIP customer's calls were completed consistent with the VoIP provider's calling plan applicable to non-hearing impaired customers.

In the specific case of a VoIP customer dialing 711 to make an emergency call, there are additional benefits to a single TRS center interim solution. If VoIP calls from customers with non-geographically relevant numbers or nomadic service can be directed to a single provider, the VoIP provider can be sure that the selected TRS center is one that has a nationwide database of PSAPs, and therefore is able to reach an appropriate PSAP for the caller's geographic location even if it is in a different state than the TRS center. In addition, the Communications Assistants in that TRS center can be trained specifically in the handling of emergency calls where the caller may be a VoIP customer. At the same time, other TRS centers can handle incoming calls based on the NPA-NXX of the caller, since VoIP calls with non-geographically relevant numbers or nomadic service will not be directed to those centers.

[12] This would apply to both "local" and "long distance" calls, since the VoIP provider's designated TRS center could be located in a state different from the one where the caller is located.

Use of a single TRS center is an interim solution because it will still require the TRS center to handle emergency calls manually.[13] It also may not be possible for the TRS center to handle calls to regionally restricted numbers (such as 311 or 511, or certain toll-free or 7-digit numbers, where a PSTN call would be terminated within a state based on NPA-NXX). This is because it would be difficult and impracticable for a single TRS center to build trunks and special configurations to each such location in every state. In addition, caller profiles established by states with the TRS provider that has the contract with the state would not be available to the single TRS center. Nevertheless, a single provider solution could be an interim step toward providing an appropriate customer experience for VoIP customers dialing 711 to make a call.

3. The Commission should allow two additional years for the development of a long term solution. An ideal long term solution would identify the geographic location (by Registered Location) of VoIP customers so that calls to 711 can be directed to the state-specific TRS operator for the VoIP customer's location. In addition, the customer's location must be available to the TRS operator so it is not reliant on the caller's NPA-NXX for determining an appropriate PSAP, for completing other regionally restricted calls, and so that it does not block calls that appear to be "transit" calls. To develop this solution, VoIP providers should work with third party database providers (such as Intrado, TCS, and HBF) to develop and populate a database correlating VoIP customers' phone numbers and Registered Locations.[14] The third party database would also need to maintain a current list of state 8XX numbers. These numbers would be established by each state for its TRS center for incoming calls from VoIP customers. When a

[13] As noted above, this means that the Commission should extend the waiver of Section 64.604(a)(4) of its rules for the designated TRS center. In addition, it could take several months for interconnected VoIP providers and TRS centers to implement this interim solution.

[14] Such databases were created in connection with the requirement to provide E911 service to customers of interconnected VoIP services. It may be possible to adapt such databases to serve in this context as well.

VoIP customer dials 711, the VoIP provider would perform a database lookup to determine the appropriate 8XX number for the TRS center serving the user's geographic location. The VoIP provider would then send the call to the state TRS provider (or allocated provider, as in California where a round-robin distribution to multiple providers is used). If the caller indicates that the call is an emergency, the TRS provider could dip the database for the VoIP caller's Registered Location in order to determine an appropriate PSAP, and route the call to the PSAP, ideally with the caller's location or an identification of the call signaling the PSAP to check the third party database. For regionally restricted calls, the TRS Provider would similarly look up the Registered Location, and route the call in the same manner that in-state calls are routed in order to receive correct regionally restricted call treatment. The TRS Provider would also allow calls that appear to be "transit" calls when they arrive over the 8XX access number. All VoIP providers would need to provide a CIC for an IXC for routing terminating calls.

4. Conclusion. Achieving a meaningful solution and an appropriate customer experience to the complex operational and technical challenges presented by VoIP callers dialing 711 to make an emergency call will require a joint effort by TRS operators, PSAPs, VoIP

providers and their vendors, the emergency services community and the disability community. While efforts have begun, the long term solution will take longer than six months to implement. For the near term, the Commission should permit interconnected VoIP providers to adopt an interim solution, as described above, if they choose.

Respectfully submitted,

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