Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20054

Telecommunications Relay Services And Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities	)))))	CG Docket No. 03-123

COMMENTS OF AT&T INC.

AT&T Inc. ("AT&T"), on behalf of its telephone companies, hereby files these comments in response to the Further Notice of Proposed Rulemaking ("FNPRM")[1] in the foregoing docket.

AT&T supports additional action by the Commission to ensure that Video Relay Service ("VRS") users can receive calls from hearing individuals through any VRS provider in a functionally equivalent manner. As the FNPRM correctly notes, the industry is at varying stages with respect to the manner in which VRS users can receive calls from hearing individuals. While some VRS providers have implemented databases that allow hearing individuals to call VRS users by simply providing a telephone or other proxy number, others still require hearing persons to provide a VRS user's specific IP address in order to make the call. The former is more functionally equivalent to the manner in which hearing individuals receive calls. Thus, AT&T supports Commission exploration of a solution that moves the industry in this direction.

AT&T herein proposes a dynamic, national database of proxy numbers for VRS users and a framework for implementation. Further, AT&T supports adoption of the H.323 protocol as

[1] *Telecommunications Services for Individuals with Hearing and Speech Disabilities*, Further Notice of Proposed Rulemaking, CG Docket No. 03-123 (May 9, 2006).

the minimum standard to ensure that VRS users can make calls to and receive calls from all VRS providers.

I. THE COMMISSION SHOULD ESTABLISH A SINGLE, DYNAMIC DATABASE OF PROXY NUMBERS.

In the FNPRM, the Commission asks whether it is feasible to establish a single, global database of proxy numbers available to all VRS providers such that a hearing individual can call a VRS user through any VRS provider by simply providing the proxy number.[2]

AT&T supports the establishment of such a database and advocates the use of North American Numbering Plan telephone numbers as the proxy. Telephone numbers are used pervasively by hearing and speech-impaired individuals for most TRS services and thus is a familiar identifier for VRS users. For hearing individuals, telephone numbers likely would be the easiest to recall given their common usage. Not to mention, their use would place VRS in parity with most telecommunications services which only require the caller to dial the called party's telephone number[3] or provide the number to an operator.

AT&T recognizes that there may be multiple ways in which to design and implement a dynamic, national database of proxy numbers. Here, AT&T proposes a general framework for such a database.

As a threshold matter, any national database should be capable of instantly mapping a VRS user's telephone number (or other proxy) to an IP address. Given the development and use

[2] FNPRM ¶44.

[3] Using telephone numbers as the proxy would support seamless contact with the VRS provider. In such instances, the VRS user would simply forward his or her calls to a selected VRS provider. Upon dialing the VRS user's telephone number, the hearing caller would be routed directly to the chosen VRS provider, thus obviating the need for the hearing caller to dial the VRS provider.

of ENUM [4] for telephone number-to-IP translation, the Commission should consider using that technology, which, in essence, converts a telephone number (e.g. 202-123-4567) to a domain name (e.g.7.6.5.4.3.2.1.2.0.2.1.FCCRelay.com) which is then looked up in the Internet Domain Name System ("DNS") and mapped to the called party's IP address. The chosen domain, FCCRelay.com, or other, should be hosted by a dynamic domain name server (DDNS), [5] so that it supports instantaneous updates via existing software and hardware.[6]

Under this framework, VRS users would, initially, populate the database by registering their telephone number and IP address. VRS users with dynamic IP addresses would have to update the registry as their IP address changes, and should be able to do so automatically via existing DDNS updater software and hardware. Hearing individuals that wish to call VRS users would only have to provide a VRS provider with the VRS user's telephone number. That provider would then access the national database, input the VRS user's telephone number, retrieve the IP address, link to the VRS user and begin providing the translation services.[7]

Such a database is workable and beneficial for several reasons. First, the technology to create such a dynamic database exists, as evidenced by the industry's use of DDNS. Given that

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[4] *See, e.g.* http://www.fcc.gov/realaudio/presentations/2004/110404/McGarryTom.ppt#278,22,ENUM Summary. ENUM converts a telephone number into a domain name which can then be looked up in the DNS, e.g., 732-555-1234 becomes 4.3.2.1.5.5.5.2.3.7.1.e164.arpa. The ENUM database used for relay services could be separate from the ENUM implementation being developed by the industry at large.

[5] *See, e.g,* *http://en.wikipedia.org/wiki/Dynamic_DNS* *or* *http://www.webopedia.com/TERM/D/dynamic_DNS.html* *Summary: A computer with a dynamic IP is difficult to reach due to its ever-changing address. DDNS allows users with dynamic IP addresses to automatically update a database with their new address every time it changes so they may always be reached.*

[6] The Commission should consider asking the North American Numbering Council or ATIS to further develop the standards for implementation of the national database, utilizing the foregoing framework. The Commission could then seek procurement of a dynamic domain name server provider to administer the FCCRelay.com domain.

[7] Attachment A illustrates how the proposed solution would work.

ENUM is the emerging industry standard for telephone number-to-IP Translation, the Commission could establish a national database that uses this protocol to convert a telephone number to a domain name and look up the associated IP address through the Internet Domain Name System.

Second, participation by VRS users would be optional. VRS users that choose not to participate would not have to do anything, and could continue to receive VRS calls as they do today, that is by providing their hearing callers with their IP addresses. However, VRS users that do choose to participate would no longer have to provide their hearing callers with updated IP addresses – an obvious benefit to both VRS users and hearing individuals. While VRS users would have the responsibility of ensuring that the information included in the database is accurate, any associated burdens would be outweighed by the foregoing benefits.

Third, a dynamic, national database would provide VRS providers a quick and easy method of obtaining IP address for VRS calls, which should, over time, minimize the amount of time VRS providers spend in retrieving IP addresses from hearing callers.

II. THE COMMISSION SHOULD ADOPT H.323 AS THE MINIMUM, MANDATORY STANDARD.

In the FNPRM, the FCC seeks comment on whether it should adopt specific Internet protocols or standards to ensure that all VRS providers can make calls to and receive calls from, VRS users, and that all VRS users can make calls through any VRS providers.[8]

Although SIP is the emerging standard for Next Generation Networks, the widespread use of H.323 terminals by VRS users warrants adoption of the H.323 protocol as a minimum standard to be used by all VRS providers. As the Commission correctly recognizes in the FNPRM, all VRS providers currently use the H.323 protocol. While other standards such as SIP

[8] FNPRM ¶51.

are used by some VRS providers in addition to H.323, those protocols are not used ubiquitously. Thus, if VRS providers are permitted the option of using SIP or other protocols exclusively, the Commission's objective in ensuring that VRS users can make calls to and receive calls from any VRS provider will not be achievable.

As an alternative, the Commission could adopt H.323 as the de facto standard, but allow VRS providers the option of using other protocols in lieu of H.323 to the extent such protocols interface with H.323. Given the changing technology in this area, the Commission should review this standard as part of its biennial review.

III. CONCLUSION

For the foregoing reasons, AT&T urges the Commission to consider its proposals as outlined above.

Respectfully Submitted,

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Its Attorneys

Relay Call Flow

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Caller

I want to call

phone number

1234567

Dials Relay Provider
800 Number directly

Relay Provider

Phone Number 1234567

converted to domain name
for ENUM query:

7.6.5.4.3.2.1.FCCRelay.com

Hearing Impaired Party

Dynamic IP Address

When IP address changes, updates are sent to Dynamic DNS via hardware or software updater

Dials Hearing Impaired Party's Number
and is forwarded to the Relay Provider

Hearing Impaired Party's Central Office

Dynamic DNS (FCCRelay.com)

7.6.5.4.3.2.1.FCCRelay.com → Dynamic IP Address

Updates