

IP Captioned Telephone Best Practices Policy

I. Introduction

IP-based Captioned Telephone Service (IP-CTS) is an authorized form of Telecommunications Relay Service (TRS) that is completely different than other forms of relay, including IP Relay and Video Relay Service (VRS). Unlike other forms of IP-based relay services, IP-CTS has not been the subject of misuse, fraud or criminal activity, and is highly unlikely to be due to the nature of an IP-CTS call and the security measures implemented by providers, as discussed below. In addition, for the kind of IP-CTS known as “IP Captel”, Captel, Inc. (CTI) and the IP Captel service providers¹ have implemented a number of security measures at every stage, including marketing & outreach, within the consumer premises equipment, and throughout call center operations & training, to ensure that the IP Captel service, and the interstate TRS funds that support it, are used appropriately in full accordance with FCC regulations.

This document describes the underlying technology that insulates IP Captel service from potential fraud and abuse. In addition, it describes the commonly accepted industry standards that could serve as enforceable “best practices” standards to help ensure appropriate use of the service and the funds.

CTI and the IP Captel service providers are committed to working with the FCC to ensure that the IP Captel service meets appropriate requirements and practices, and that the service furthers the FCC’s statutory mandate of ensuring that TRS is available, to the extent possible and in the most efficient manner, to individuals with hearing loss in the United States.

II. Underlying IP Captel Technology

The Model 800i and Model 840i IP Captel phones use a single subscriber-paid telephone line for all outgoing and incoming calls and a subscriber-paid Internet connection to provide caption support for the telephone calls. This is similar to a “2-Line Captel service” which uses two subscriber paid telephone lines – one for the voice telephone calls and the other for connecting to the captioning center.

¹ IP Captel service is currently provided by AT&T Services, Inc., Hamilton Relay, Inc., and Sprint Communications Company, L.P.

A. No Incentive for Abuse

- **The IP Captel phone user must subscribe to a voice telephone service to use the phone.** The connection between the caption user and the hearing party is via the telephone line. Calls to and from the IP Captel phone are a regular telephone call and all of the traditional telephone features, billing arrangements, and emergency call routing apply to these Captel calls. The PSTN network signaling can be used to identify the location and subscriber information so the user cannot conceal their identity by using an IP Captel phone. This removes possible incentives for fraud, abuse, and waste.
- **The user does not receive free long distance calls or free access to the public switched telephone network or internet when using an IP Captel phone.** If the user places a long distance call they will be billed based on the calling plan they have selected from the voice service provider. There is no incentive to misuse the service to get free telephone calls.
- **The caller cannot “hide” their identity behind the CA.** During an IP Captel phone call, the two parties are speaking directly to each other. The IP Captel CA does not interact directly with either party on the call and, therefore, the caller cannot “hide” their identity behind the CA. Moreover, each party to the call has access to Caller ID technology, and each party’s underlying service provider has access to call detail information about each party to the call. An IP Captel call, in short, is no different than any kind of call on the PSTN. The underlying provider can even block calls as needed, independent of the relay provider.

B. No Evidence of Abuse, Fraud, or Misuse

- **The records show no evidence of abuse, fraud or misuse with IP Captel.** After years of careful analysis of IP Captel service calls and traffic, CTI has found that IP Captel service does not experience the kind of fraud and misuse that IP Relay has experienced. There is no incentive for users to use IP Captel phones to get free telephone calls or that they use IP Captel service to try to hide their identity in order to commit some sort of fraud. As far as both parties on an IP Captel

call are concerned, the call is just like any other voice telephone call and provides neither party a different or greater opportunity to commit fraud.

C. Built-in Safe Guards

- **The IP Captel service includes built-in safe guards to help ensure that the service is not abused, including:**
 - The IP Captel platform uses an IP address geographic location database. The platform does not accept IP Captel phone connections that are not using a domestic or US territory-based IP address.
 - IP Captel phones report the telephone number dialed by the user so that this number can be included in the CDR and audited.
 - IP Captel CAs and Supervisors are trained to report potential misuse calls (described below).

III. Captel Best Practices

A. Marketing & Outreach

- **Acceptable Use Policy.** CTI's published Acceptable Use Policy helps guide all marketing, outreach, and sales efforts to ensure the service is promoted to and used only by individuals who require specialized equipment to access the telephone network, reducing the potential for abuse.

Captel Telephone Acceptable Use Policy

The Captel telephone is intended for use by people with hearing loss. Using this phone with the CAPTIONS feature on means that a live operator listens to the call and helps provide captioning. People who do not require captioning support for their telephone communications should only use a Captel telephone with the CAPTIONS feature turned off.

In purchasing a Captel phone, you acknowledge that it is intended for use by a person with a hearing disability and you agree that it will be used

appropriately. Use of the Captel phone in any other manner may violate FCC rules.

Captel 840i and WebCaptel are designed for use within the United States (including Hawaii and Alaska) in connection with a federally funded program for people with hearing loss. International calling is not supported.

- **Online Verification.** In order to purchase an IP Captel telephone online, the purchaser must first agree to the Acceptable Use Policy before an order can be placed. The policy is published in several readily visible locations including:
 - On the main CTI website
 - Acceptable Use Policy is first item under Legal Notice page.
 - A link to the Legal Notice page appears on every page of the website.
 - On the Weitbrecht Communications, Inc. (WCI) website (WCI is CTI's master distributor for IP Captel phones)
 - When a customer places an order for CapTel equipment, a box pops up summarizing the Acceptable Use Policy. User must click "AGREE" to the Acceptable Use Policy before the order can proceed. If customer does not agree, the sale does not go through.
 - Acceptable Use Policy is the first item under the Terms & Conditions page. A link to the Terms & Conditions page appears on every page of the WCI website.
 - On Captel service provider's websites
 - Example: The Hamilton Captel website
 - Links to the terms and conditions are found on all the product and accessory pages.
 - When a customer places order for CapTel equipment, a box pops up summarizing the Acceptable Use Policy.
 - User must click "AGREE" to the Acceptable Use Policy before the order can proceed. If customer does not agree, the sale does not go through.
- **Verification Over the Phone**

- For over-the-phone orders, the sales staff is trained to screen customers to make sure they are an appropriate fit for IP Captel through a series of questions:
- All callers are asked who will be using the phone (“Is the phone for you or for someone you know?”) and then asked if the intended user has difficulty hearing over the phone. If, through this process, the sales agent identifies that the user has hearing loss, the order proceeds.
- If the sales agent determines IP Captel is not an appropriate fit, the customer is directed to either a different more-appropriate product or to a different company.

- **Advertising and Outreach**

- All marketing and distribution channels specifically target demographics that have a high number of individuals with hearing loss. Target markets include hearing health care providers, retirement homes, companies that offer similar products and services, and other channels that support/work with individuals who can’t hear on the phone.
- Advertising specifically targets people in the hard of hearing community – individuals who have difficulty hearing on the phone or for whom the phone has become a source of frustration. Brochures, print ads and videos all stress that the IP Captel Service is a solution for people who struggle to hear on the phone.
- No quotas are applied to outreach, sales and/or marketing individuals for equipment sales. The goal instead is to ensure a high standard of acceptable use to ensure that no one receives IP Captel equipment that does not need, nor intend to use, the IP Captel equipment or service.
- All marketing programs are analyzed against the goal of only placing equipment in the hands of consumers that have a need for captioning service. All marketing programs are also analyzed to ensure:

- They service ONLY a domestic market and not service any international market.
- They do not offer any direct or indirect financial or other incentives to consumers for using this service.
- That all programs have an acknowledgement in place that requires consumers to confirm hearing loss, i.e. Acceptable Use Policy.

IV. IP Captel Best Practices

A. Consumer Premises Equipment

- **Warning labels**
 - On the equipment
 - All IP Captel equipment comes with a film that the user must remove before using the phone. On the film is the following notice:
“Captel is intended for people who have difficulty hearing over the phone. Using this phone with the CAPTIONS feature on means that a live operator listens to the call and helps provide captioning. For all others, the phone should be used with the CAPTIONS turned off. Remove protective film from display screen before using.”
 - In the User documentation
 - The Acceptable Use Policy is listed prominently in the IP Captel phone user manual.
 - On the box
 - To prevent individuals who don’t need the product from buying and reselling the equipment without going through the Acceptable Use Policy screening, equipment comes with a “Not for Resale” sticker on the outside of every box.
- **Verification at Installation**
 - CTI is incorporating self-certification as part of the installation process. A new user must “agree” to the Terms & Conditions (CTI’s Acceptable Use Policy) as a step in installing the equipment before

he/she can make/receive calls. If the user does not agree to the Terms & Conditions, the captioning feature will not be enabled.

- **Captions On/Captions Off Control**
 - Functional Equivalence.
 - IP Captel service including the IP Captel phones is designed to make telephone calls as functionally equivalent to a regular voice telephone call as possible for someone with a hearing loss.
 - Although it may seem a simple matter for a user to press the “Captions ON” button to receive captions before placing or answering a telephone call, most IP Captel users are elderly people and many have limited technical abilities. It is both a burden and unnatural for them to remember to turn on the captions for each call.
 - CTI and the IP Captel service providers strive to balance the effectiveness and usability of the IP Captel service with appropriate safeguards for the funding agency.
 - As part of efforts to ensure appropriate use of the service, CTI performs an annual analysis of the average minutes of use for Captel phones that are in states that require the Captions default to be “Off” compared to the average minutes of use for states that have the Captions default to “On”.
 - For each year that CTI has conducted this analysis, *the Captel phones that default to Captions “Off” have a slightly higher average number of minutes of use compared with those that have Captions defaulted to “On”.*
 - While the difference in average minutes of use is quite small, the data consistently confirms that the Captel service is not experiencing any significant number of minutes of use for calls where the captions should be off or that defaulting captions to “Off” would prevent any misuse or accidental use of the service.
 - Based on years of such consistent data, CTI and the IP Captel service providers feel confident that they can and should continue to allow the user to set the Captions default to “On” or “Off” based on the user’s individual abilities and needs.

B. Call Center Operations & Training

- To minimize the possibility of misuse of the service, CTI has implemented several call-handling practices.
- IP Captel service CAs are trained to summon a supervisor any time they believe a call is not between two parties on a telephone.
 - The following disconnect procedure is included in the *CA's Floor Orientation Guide and Outline*. A copy of this document is in a reference binder in each of the Supervisor zones on the call floor. This information is communicated to CAs in a Floor Orientation meeting just prior to graduation.

“If/when it becomes clear to a CA that the audio being captioned is suspect of an infringement, the CA is to call for a Supervisor using the “Sup Call Alert key”. The Supervisor will listen into the call to access the situation further and determine if the call should be disconnected. If a call is to be terminated, the Supervisor will send a pre-programmed disconnect message for the specific situation (i.e. foreign language, television, radio).

- An example of a disconnect message:
“Foreign language service not available. Please contact Customer Service at 1-877-269-7477. Your call will be disconnected.”

In situations identified as silence, radio or television programs, etc. the following disconnect message will be sent. “No further audio, your call will be disconnected.”

C. CDRs & Reporting

- There are several different forms of IP Captel service. CTI has provided the FCC with a summary of the various forms of IP Captel service along with a description of the call flow and the resulting data that is available for reporting or inclusion in IP Captel service CDRs. (*See Captel Call Types, June 11, 2012*)
- The different forms of IP Captel service are not like IP Relay and/or VRS in a number of significant ways. With IP Relay and VRS, a user gets free access to the US telecom network via the relay service. This must be

carefully managed so that this free access is used appropriately. For this and other reasons, the FCC requires registration and ten digit number assignment for the users of these services. The FCC also requires that the IP Relay and VRS provider include the assigned telephone number in the CDRs so that it is possible to reliably audit the CDRs and usage.

- IP Captel service users do not get free access to the US telecom network. All IP Captel service users must subscribe to, and pay for, a voice telephone service in order to use one of the IP Captel service methods. The users have already registered and received a ten digit telephone number from their voice telephone service provider. Therefore, the ten digit numbering requirements are not applicable to IP Captel service.
- IP Captel service users can receive captions for telephone calls using their existing voice telephone and a computer with a browser. This is called WebCaptel and includes the IP Captel smart phone applications offered by the various IP Captel service providers. WebCaptel calls flow through an IP Captel service center and therefore the CDRs include the inbound caller's telephone number, the outbound dialed number, and the IP address of the device used to display the captions. This information along with the other call data in the CDR is compliant with the FCC's reporting requirements for IP relay services.
- The most popular form of IP Captel service is the use of IP Captel phones. IP Captel phones use a regular telephone line for the voice part of the call and an internet connection to provide the linkage to the IP Captel service.
 - There are many advantages for this type of IP Captel service and these are covered in the supporting document (*Captel Call Types, June 11, 2012*). This is the most functionally equivalent form of IP Captel service and supports all call types and features normally available for residential telephones.
 - This type of IP Captel service is different from IP Relay in that the user must have acquired an IP Captel phone, subscribe to a voice telephone service, and have broadband service. Inbound and outbound calls for IP Captel phones are carried directly by the PSTN and not through the IP Captel service center.
 - This provides a fully functionally equivalent telephone call for the user. However, because the voice call does not go

- through the IP Captel service center, CTI and/or the IP Captel service provider cannot capture or report the PSTN signaling.
- The connection from the IP Captel phone to the captioning service is via the internet so the captioning service can and does provide the IP address for the IP Captel phone.
 - Because of the above, the IP Captel service cannot reliably obtain the PSTN telephone number for the IP Captel phone and therefore the CDRs for IP Captel calls cannot supply the IP Captel phone's PSTN number. However, the CDRs do include the IP address for the phone.
 - This would be of concern for IP Relay and VRS calls because the IP address is difficult to audit and there is the potential for misuse to get free telephone calls.
 - However, as noted above, IP Captel phone users do not get free telephone service. Any charges that would normally apply for making the call are paid for by the calling party. Therefore, IP Captel service does not experience the type of misuse and fraud that the other forms of IP relay services do.
 - CTI and the IP Captel service providers recognize that even though IP Captel phone usage does not support the type of misuse experienced by the other forms of IP relay services, the FCC and the TRS Interstate Fund administrator need reliable fields in the CDRs for auditing purposes. The IP address in the CDR is typically dynamically assigned and, therefore, difficult to audit. However, in addition to the IP address the Captel service platform also captures the unique electronic serial number (ESN) of each IP Captel phone each time the phone connects to the IP Captel service. This electronic serial number (ESN) along with the user's signup information (name and address) can be used to effectively audit IP Captel phone CDRs and usage.
 - CTI and the IP Captel service providers are recommending that CDRs for IP Captel phone calls submitted for reimbursement also include the IP Captel phone's unique ESN. This will provide a unique identity for each phone in the CDR. In addition, CTI can, upon request and under confidentiality, provide the FCC and/or the TRS Interstate Fund administrator with a database containing the ESNs along with the owner's name and address. We believe this additional information will meet the FCC's requirements for a

reliable method for auditing IP Captel phone usage and CDRs.

V. Minimum Standards

A. Speed and Accuracy of Captions

CTI has worked extensively with providers and users of the Captel service to establish a set of baseline standards for the performance of the captioning service. We have learned that in order to make the captioning acceptable for use on telephone conversations, the CAs must be trained and tested to provide verbatim captions, with a minimum speed of 125 words per minute, that are 98% accurate² for English conversation that does not contain unusual names or technical terms. The captions must be a verbatim transcription of the words spoken by the hearing party.

Each CA is required to pass a speed and accuracy test to the above minimum standards before they are allowed to provide captions for live Captel calls. In addition, each CA is retested monthly to ensure they have maintained this level of performance. Should a CA fail a speed and accuracy test, they are removed from production service until they are able to successfully complete the qualification test.

Note: CTI and the Captel providers can not guarantee the speed and accuracy of every Captel call. There are variations in the clarity of telephone line audio, unusual speech patterns, and vocabulary used in conversation that may result in a lower transcription rate and/or a lower accuracy.

B. Captel Service Level Requirements

CTI and the Captel providers support the current FCC service level requirements for TRS calls of 85% of all calls answered in 10 seconds along with a blockage rate that does not exceed P.01 with both parameters measured over a 24 hour day.

² Accuracy is the percentage of major errors subtracted from 100%. A major error is defined as any word that changes the context of message, including missing words or sentences. Minor errors are defined as errors that do not materially affect the context of the message. Major errors that are corrected by the CA are not counted.

VI. Summary

IP Captel service provides important access to the telephone network for a population of individuals who are deaf or hard of hearing that has heretofore been underserved by other forms of relay services. IP Captel service is also able to achieve a level of telephone functional equivalence that was not previously possible for relay services. As a result of this and of the increased competition by providers, the use of IP Captel service (and other forms of IP-CTS) is steadily growing.

We note that there are a number of significant technical and operational differences between IP Captel service and other forms of internet-based relay services. CTI and the IP Captel service providers recognize that now is the time for the FCC and IP-CTS providers to develop appropriate practices for the deployment and provision of IP- CTS services. We respectfully submit these “best practices” which are being employed by CTI and the IP Captel service providers as a basis for IP- CTS industry guidelines.

Respectfully,

[Pamela Y. Holmes](#)
[Director, Consumer & Regulatory Affairs](#)
[Ultratec, Inc.](#)