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FEATURE STORIES

Apple Reaches Out to Schools for Deaf and Blind ........................................ pg 12
National Outreach from the iCanConnect Program ................................... pg 14
Improving Communications Technologies for People who are DeafBlind ...... pg 16
Communication Facilitators: What’s the Latest? ..................................... pg 18
A Partnership Enabling Deaf and DeafBlind People to Communicate with Each Other with Real Time Text – RTT ................................................... pg 22
Introducing Twelve Famous DeafBlind Americans ..................................... pg 24
TDI’s Interview with Jackie Ellington, NDBEDP - FCC ............................. pg 28
TDI’s Interview with Ryan Bondroff, Sprint Accessibility .......................... pg 30
TDI’s Interview with Jelica Nuccio, Tactile Communication ...................... pg 31
Interview with Scott Davert, Charlotte Regional Center, NC-DSDHH ....... pg 34

REGULAR COLUMNS

BOARD VIEWS by Sheila Conlon-Mentkowski, TDI President .................. pg 2
How to Effect Change in Public Policy

CAPITOL COMMENTARY by Claude Stout, TDI Executive Director ........ pg 4
The DeafBlind Community in America has TDI’s Support

OUR QUEST FOR ACCESS by Eric Kaika, TDI Director of Public Relations .... pg 10
Building Stories and Members for Greater Communication

TDI IN ACTION December 2017 - February 2018 ........................................ pg 37

Thanks to These Advertisers:

ALDA, pg 13 • Hamilton Relay, pg 23
Maryland Relay, pg 36 • Sprint Accessibility, inside front cover
Sorenson VRS, inside back cover • Ultratec, back page
How to Effect Change in Public Policy

We have been witnessing a number of live demonstrations over the years. Do demonstrations and marches effect change or influence opinion? I did some research on historic marches and protests and came up with examples.

Here are some examples of historic protests and marches. One of the first well known protests in the USA was the Boston Tea Party in December 1773, organized by the Sons of Liberty. It was a political protest in defiance of the King’s Tea Act of May 10, 1773, where a group of demonstrators destroyed an entire shipment of tea sent by the East India Company in December 1773. They boarded the ships and threw the chests of tea into Boston Harbor. The British government responded harshly and this demonstration escalated into the American Revolution and the eventual beginning of the United States of America.

Another historic demonstration was Gandhi and the Salt March which happened in March 1930 when Mahatma Gandhi and a small group of supporters set off on a 241 mile march across western India. Gandhi organized the march as an act of nonviolent protest against the British government’s salt monopoly, which placed tariffs on the mineral and prohibited Indians from producing salt. When arriving in the city of Dandi in April, Gandhi illegally collected salt from the seaside as a symbolic act of defiance against the British government. His actions inspired numbers of Indians to ignore the salt tax, start strikes and boycotts against colonial institutions. Gandhi and some 80,000 others were arrested but not before their peaceful protest had captured the world’s attention and demonstrated the power of mass resistance to British rule. (Wikipedia). These two protest examples are interesting as they were both aimed at breaking free from Great Britain and its sovereign authority.

In the US, during the 1960’s, the Civil Rights protests and marches led to the Civil Rights Act of 1968. These began with the movement against segregation and led to a number of marches, from the march in Selma, to the Poor People’s March on Washington DC. I remember my senior class trip to Washington, DC, in 1968. I went to a small hearing Catholic girls’ high school. We decided
we wanted to go on a senior class trip instead of a prom. The nuns were very protective of us and made sure we were in safe areas as we toured DC. We were able to see the protestors from a safe distance as we toured the DC Mall. The protestors had set up camp there in what was called “Resurrection City” for six weeks. The goal of this campaign was to seek economic justice for all people.

A more recent march involving the deaf community was the student-led Deaf President Now (DPN) Demonstration and march in 1988 when the Gallaudet Board of Trustees selected a hearing woman to be the President of Gallaudet over other highly qualified deaf candidates. I remember this protest as I worked on the Gallaudet campus as a staff attorney at the National Center for Law and the Deaf. I supported the students even though initially there was apprehension among Gallaudet staff and faculty that we may lose our jobs if we supported the student protest. After a week, the four demands were met, a.) Zinser’s resignation (the hearing candidate) and the selection of a deaf person as President, b.) the immediate resignation of the Chair of the Board, Jane Bassett Spilman, c.) the reconstitution of the Board of Trustees with a 51% majority of deaf members, and d.) no reprisals against any students or staff members involved in the protest. So that protest had some immediate results in one short week while other protests seem to have little or no effect on policy development or changes. Many have said that the DPN event had given a tremendous impetus to the eventual passage of the 1990 Americans with Disabilities Act.

At the present time, there are marches ongoing for various causes. Some examples are Women’s marches, Black Lives Matter, student marches against guns in the wake of the numerous school shootings, and the Justice for Stephon Clark Protests. The Stephon Clark protests are happening here in Sacramento, CA where I now live. Stephon Clark was a young black man who was shot and killed on the evening of March 18, 2018, by two police officers in Sacramento. The officers were looking for a suspect who was breaking windows in the Meadowview neighborhood of Sacramento. They encountered Mr. Clark, an unarmed 22 year old African American they found in the backyard of his grandmother’s house where he lived. Clark fled from the police which was filmed on police video cameras. The officers said they shot at Clark with 20 rounds, believing he was pointing a gun at them. After the shooting, they found he was only carrying a cell phone. The shooting caused large protests in Sacramento. One was led by Black Lives Matter which shut down a major interstate in Sacramento, and prevented NBA fans from entering a Sacramento Kings’ basketball game, resulting in delaying the game. Other protests continued for days after the shooting. Some were marches in the city, ending at the State Capitol, the Golden 1 Center (where the Kings play), City Hall, and the District Attorney’s office building. Living in Sacramento, during these protests, we had to check TV news and social media when we went somewhere to make sure our route was not going to be blocked by protesters in the streets. Is this protest making a difference? It appears so as the police, legislators, and other government agencies examine police procedures, policies, and curriculum for trainings on how to handle certain situations when dealing with suspects.

I did some searching on the Apple App Store for carrying out effective protests during my research on marches and protests for this column. I am not endorsing these apps, merely offering them as examples for what is available for use so you don’t have to start out from scratch. Do some searching on your smartphone to see what apps are available to use if you are interested in advocating for a cause.

All for Access,
Sheila Conlon-Mentkowski
President, TDI
The DeafBlind Community in America has TDI’s Support

According to Wikipedia, there are about 70,000 deaf-blind people in the United States. A person may be totally deaf, totally blind, low vision, hard of hearing, or any combination of these four conditions. Additionally, some deaf-blind individuals will have been deaf first and be familiar with alternative techniques which focus on vision, while others may have been blind first and are therefore more comfortable with solutions that rely on hearing.

Looking back on the results TDI has achieved in fifty years for this community, in some areas we have made some progress, and in others, we realize we could have done better. It all began when I. Lee Brody developed the first Braille TTY in 1974. Thanks to special efforts by Ultratec and a few other companies since the early 1980’s, several attempts have been made over the years to develop portable electronic Braille devices. The incentive to upgrade and mass market these products was not there for the telecommunications industry due to the small size of deaf-blind users, and the costs were prohibitive to the average deafblind person. It is urgent (not just important) today that not just a few deafblind individuals do well, we owe it to this special community so that many more of them will experience as much opportunity and access in the future like the rest of us that are deaf and hard of hearing, and in the general community.

Over the years, Ultratec produced a number of specialized devices for the deafblind community. This picture shows a two-page ad spread announcing in 1988 its offering of large font displays as accessories for its Superphone TTY products. Ultratec introduced one of its customers, Edith Simons, herself deafblind from Kenosha, Wisconsin in the ad.

Reprint with permission from: Rob Engelke/Ultratec.

TDI’s Ten-Point Approach to Support the DeafBlind Community from Cradle to Grave

In addition to a few companies in the market, TDI has worked with key consumer advocacy organizations that serve the needs and interests of individuals who are deafblind, or are hard of hearing and experience some degree of vision loss. They have a leading role, as only they can speak up for this special constituency. Organizations that TDI has collaborated in a supportive role with are, but not limited to: American Association of the DeafBlind, DeafBlind Citizens in Action, and Chicago DeafBlind Alliance. We
fully support their issues and needs in formal proceedings with the Federal Communications Commission (FCC) and other federal agencies.

1.) Early Hearing (and Vision) Detection and Intervention (EHDI)

The earlier parents begin to actively advocate for their deafblind children, the better chance their children will prosper well throughout life. There are some EHDI services and resources at state and local levels primarily designed for parents to have their children be early identified as deaf or hard of hearing, and to receive intervention for them before they are six months old. As a result, they will likely have significantly better receptive and expressive language, personal-social skills, receptive and expressive vocabulary, and speech (/ or sign language) production. This program should extend the same benefits for parents whose children that are deafblind. With EHDI support, newly participating parents make contacts with other parents that have children that are deafblind, and service providers that have experience working with them. TDI recommends that the parents consider either of the two national parent groups for support: American Society for Deaf Children (www.deafchildren.org), and Hands and Voices (www.handsandvoices.org).

2.) Education

It is not easy for parents to decide where the best placement is for their deafblind children in education. Either they go to a nearby public school, a school for the blind, a school for the deaf, or a private school. Federal law mandates that individual States take responsibility for education until the age of 21. Too often, parents do not realize that they have rights and privileges in the Individual Education Plan process to get their children as much support possible to succeed well in and out of the classroom. In recent years, some professionals at state, regional, and national levels have joined parents to be more vocal for the rights of deafblind students to a truly appropriate education. Providing a free and appropriate public education (FAPE) to deafblind students requires that state and local education agencies recognize their unique educational needs and put into place systems that will ensure access to a quality education that is equal to that of their sighted-hearing peers. After they finish their K-12 education, and are ready for post-secondary education, we encourage them to consider attending colleges, universities, or community colleges, and make sure they get sufficient accommodations, including communication support and transportation from these educational institutions. American Society for Deaf Children, and Hands and Voices also make good resources here for these parents.

3.) Employment

For a number of reasons, many deafblind Americans today are not holding full-time jobs. While some of them are well-educated or adequately prepared, unfortunately a great percentage of employers are hesitant about hiring them for a variety of jobs, the accommodations that they would need to be successful, and whether they are up to meeting the demands of the job, etc. We must do a better job in educating about the deafblind community’s employability at all levels, depending on their educational background, knowledge, skills, and abilities. In case some do graduate from high school but for those who are not ready for the world of work, they can apply for services from the Helen Keller National Center for Deafblind Youth and Adults (HKNC). HKNC provides intensive vocational rehabilitation services on a national basis to individuals who are deaf-blind at its headquarters in Sands Point, New York. Through its ten regional field offices, HKNC offers technical assistance, information, referral, advocacy and training to private and state agencies enhancing the ability of service providers to better meet the rehabilitative needs of people who are deaf-blind. In addition to services offered by HKNC, TDI recommends that parents check with state commissions of deaf and hard of hearing offices, state Vocational Rehabilitation offices, local community service centers for the deaf and hard
of hearing, and/or local centers for independent living (CILs).

4.) Transportation
A major obstacle for many of the deafblind to compete for jobs is having access to a number of options in local transportation. A few major cities have light rail, and most other cities and towns have taxi, shuttle, and shared-ride services such as Uber and Lyft, or in some areas, special disability access travel services. Suppose a smart city comes through with some accessible features within its infrastructure, a deafblind person gets to live independently in a high rise apartment building in the middle of where the action takes place in the city. He or she walks a few steps from the apartment building to catch a ride on light rail for work. And that while on way back home, he or she stops by a food supermarket to buy groceries, and then the post office to drop off a priority mail packet. Later in the evening after dinner, he or she does some workout in a gym, and then has a good smoothie on way back home. TDI encourages the deafblind community to work with mayors and city councils to consider their needs before they make decisions on funding, policy, and logistics for their “Smart City” plans.

5.) Health Care
The Americans with Disabilities Act (ADA), the Rehabilitation Act of 1973, and the recent Affordable Care Act (ACA) require hospitals and medical providers to ensure effective communication with people with disabilities, including those who are deafblind. Failure to obtain qualified sign language interpreters for medical interpreting puts patients’ health at risk, increases liability for hospitals and medical providers, and drives up medical costs. However, qualified sign language interpreters may not be available for an in-person appointment or there may be an urgent need for communication during an emergency with a medically unstable patient. For deafblind patients, it depends on how much residual vision they have because using Video Remote Interpreting (VRI) off-site is not a tactile-based approach. VRI uses videoconferencing technology, equipment, and a broadband Internet connection with sufficient bandwidth to provide the services of a remote interpreter, usually located at a call center, to people at different locations.

However, in the last few years, often we see medical providers choose VRI as the sole auxiliary aid option in the context of providing healthcare. As a result, the National Association of the Deaf (NAD) and Deaf Seniors of America (DSA) produced a position statement to guide healthcare providers in adopting internal VRI policies that best meet the communication needs of deaf, deafblind, and hard of hearing patients and their companions. NAD also has a Model Policy for Effective Communication in Hospitals that should guide all medical providers in the development of overall effective communication policies in their operations and provision of services.
6.) Face-to-Face Communication Support

Those who are hard of hearing with any degree of vision loss can generally depend on their residual hearing and speak well enough to be understood by others. They rely on audio amplification using hearing aids, cochlear implants, loupes, and FM transmitter systems. For others who are deaf with any type of vision loss may not be able to speak clearly enough to be understood by others so they use the services of a third person: an interpreter, an intervener, or a support service provider (SSP), depending on the situation. A typical day-to-day life takes place in several settings, at home, in school, at the workplace, or anywhere in the community. As the developmental, educational, and social needs of deafblind children and adults in various settings are properly assessed, they require different types of communication assistance when interacting with others. An interpreter is a person who translates information from one mode or language to another (ie: spoken language to signed language and vice versa). An intervener is someone who intercedes between a child and his or her environment, ensuring access to information usually obtained through vision and hearing. An SSP provides support that enhances independence such as facilitating communication, providing sighted guidance, and transportation to or from events or simple errands like shopping.

7.) Telecommunications Technology

Elsewhere in this TDI World issue are two articles about the iCanConnect program. The equipment distributed through iCanConnect makes the following services accessible for the deafblind: a.) Voice communication through wireline and wireless telephones, b.) Internet-based voice communication, c.) E-mail, text messaging, and instant messaging, d.) Interoperable video conferencing services, and e.) Internet access, including information services.

TDI is optimistic that when the Real-Time Text technology (RTT) is fully deployed across America within the next few years, it will facilitate more natural, conversation-friendly communications for those who are deaf and hard of hearing, including those who are deafblind - without the need for separate adaptive hardware. RTT will also allow 911 operators to receive text messages during an emergency even if the message was grammatically incorrect or incomplete, potentially saving lives. RTT is expected to be interoperable across wireless networks and devices, creating the potential for unprecedented ease of communication between deafblind users and their contacts. An additional benefit for some deafblind users is that these machines can be connected to Braille display devices.

Many deafblind people and those with low vision use computers to meet their telecommunication needs. They use different instant messaging (IM) apps, SMS text messaging, closed apps such as Skype, Facebook Messaging to chat via text or video, and email with their preferred configuration with a Braille display or a screen magnification package. Some deafblind users have access to an electronic Braille notetaker, which is similar to a personal data assistant (PDA) with features, including but not limited to a calendar, address book, calculator, note taking, and for reading ebooks. Thanks to the flexibility of the Apple’s iOS operating system, the size and portability of its iPad, iPhone, and iPod Touch devices, and the robust accessibility features, they have been made accessible to deafblind users to connect with people anywhere. Furthermore, deafblind users will also find many accessible apps for reading books, keeping up with the news, social networking, entertainment, health, and productivity.

8.) Telecommunications Relay Services

Telecommunications Relay Service (TRS) is a telephone service that allows persons with hearing or speech disabilities, including those who are deafblind to place and receive telephone calls. TRS is available in all 50 states, the District of Columbia, Puerto Rico and the U.S. territories for local and long distance calls. There are several forms of TRS, depending on the particular needs of the deafblind, the equipment available, and the nature of the call: a.) Text-to-Voice TTY-based
TRS (Traditional TRS), b.) Captioned Telephone Service (CTS), c.) IP Captioned Telephone Service (IP-CTS), d.) Internet Protocol Relay (IP-Relay), and e.) Video Relay Service (VRS). Deafblind callers that are totally deaf and blind are not able to use any of the current forms of TRS. Advocacy groups of the deafblind, with TDI’s support, have asked the FCC to consider exceptions to the current TRS rules for VRS that would address their unique needs here. For VRS nationwide, the FCC has been asked to permit communication facilitators (CFs) to work in the same room with the deafblind, allowing them to make calls via VRS. A communication facilitator provides visual information to those unable to see the video screen or receive visual American Sign Language (ASL). A CF is a skilled signer who copies sign language from a caller, as shown on a videophone screen, and provides visual information to a deafblind person, through close vision or tactile sign language. All TRS calls, that are reimbursable by the FCC, take place with parties on both ends of the call, but not in the same room. Other issues like privacy and call confidentiality will need to be considered, too. We hope to see the FCC authorize offering of this new form of TRS soon.

9.) Access to Television/Internet Video Programming  

Television Captioning: Closed captioning displays the audio portion of a television program as text on the TV screen, providing a critical link to news, entertainment and information for individuals who are deaf or hard-of-hearing (including those who are deafblind). Hearing people welcome captioning in noisy public places or other places where sound from the TV would disturb others.

Internet Captioning: FCC rules also require that captioned programs previously shown on TV must be captioned when re-shown on the Internet. These rules only apply if the video programming was shown on TV in the U.S. with captions.

Accessible TV and Set-Top Box Controls, Menus and Program Guides: If you are a deafblind person and having trouble activating closed captioning or video description, or having difficulty accessing the controls, menus, or program guides to select and display video programming, check the FCC’s rules for this area. The rules cover televisions, set-top boxes, and similar devices that receive or play back video programming, and are manufactured, leased, or requested after December 20, 2016.

Closed Captioning Display Requirements for Equipment: Closed captioning displays the audio portion of a television program as text on the screen, and provides access to television for people who are deaf or hard of hearing, including those who are deafblind. Consumers, including those who are deafblind, can configure the display of closed captions in ways that suit their viewing needs such as high contrast readable captioning.

Many in the deafblind community have total hearing and vision loss, thus they cannot benefit from watching video programs with captions on the TV screen. Requests have been made informally with the FCC, and the TV industry for captions from television that are passed through as untethered, maybe via Bluetooth to benefit the deafblind that use portable Braillers. Those who watch TV on their computers or wireless devices can also hook up to their Braille displays. This would be a tremendous breakthrough, as they would have a total entertainment experience with their families and friends.

10.) Emergency Communications

During emergencies, it is important that our country’s communications systems, such as telecommunications, TV, radio, and the Internet are accessible to those who are deafblind. For example, in such a situation, any one deafblind citizen should have the capacity to dial 911, call his/her family members to make sure they are safe, and turn on his/her television and/or radio/the Internet to get breaking news and important updates.

There are three main components to emergency communications:

- 911 call processing and delivery through Public Safety Answering Points (PSAP) and call dispatch.
- The Emergency Alert System.
- Radio and/or broadcast or cable television station news and updates.

911 Call Processing & Delivery through PSAP and Call Dispatch: If you make a wireline or landline 911 call, based on your fixed address, dialing 911 quickly connects you to a PSAP dispatcher trained to route your call to local emergency medical, fire and law enforcement agencies. At the PSAP, the dispatcher verifies the caller’s location, determines the nature of the emergency and decides which emergency response teams should be notified. If you place a wireless 911 call, your wireless service provider makes every effort to provide location information automatically available to your most appropriate PSAP or 911 call center. In a few years from now, your PSAP can locate the source of your call using three coordinates, (x, y, and z) down to exactly where you live, down to a certain floor, and
in which room on that floor within an apartment building.

Some of the deafblind still use TTYs to complete calls with their digital wireless phones, including 911 calls, if the phone itself is TTY-compatible. Video Relay Service (VRS) and Internet Protocol (IP) Relay service providers distribute regular ten-digit telephone numbers to their customers so that their emergency calls, along with the ten-digit number and location information, automatically route to the most appropriate PSAP. If Text-to-911 is available in your area, people with smart phones can text to 911 to make an emergency call. If your area is not offering this service, you will get a bounce-back message, and thus you will know to resort to using another technology to make the emergency call. In a few years when RTT is fully deployed, this may become one of the most reliable forms of technology to make direct calls to 911, as required by the ADA.

Emergency Alert System: It is important that the deafblind, like anyone else, benefit from accessing the emergency alert system in which the TV, radio, and wireless industries passes news of a national emergency from the President of the United States to the American people. State and local authorities can also deliver other emergency information such as AMBER (missing children) alerts and severe weather information to an affected area.

Radio, Television, Phone News and Updates: Some cities/counties have community notification services that go out to subscribers by text, email, or telephone. The TV industry is expected to make local emergency information in accessible audio and visual formats for viewers who are deaf, hard of hearing, or deafblind. Emergency information is intended to help protect life, health, safety or property. Such information provided in the audio portion of programming must be provided either using closed captioning or other methods of visual presentation, such as open captioning, crawls or scrolls that appear on the screen as well as graphics. If you subscribe to a voice and paging service, you get reports on significant disruptions or outages to its networks, and disruptions affecting 911 facilities or airports. However, because wireless networks may be congested during an emergency, sending a text message may work better than placing a voice call. Finally, unless you have a battery-operated TV or radio, these devices will not work during a power outage. Hopefully in a few years from now, 911 call centers or PSAPs will have the technical capability to receive texts, photos and video.

It is important that you be prepared and have a family communication plan that includes contact information of a trusted person outside of your area for you and your family to check in. In most disasters, be prepared to shelter in place with enough food and water plus other essentials. Professional responders may take anywhere between a few hours up to two weeks before they can reach you.

Hope you enjoy this special TDI World issue on the needs and issues of Americans who are deafblind. We must stand united and work with them to build a better future in which they will no longer be marginalized and isolated in their local communities. The access and opportunity that the rest of us take for granted every day, we must recommit ourselves, deafblind or not, to this essential national effort until they experience having the same benefits as the rest of the American populace.
Our Quest for Access

Building Stories and Members for Greater Communication

This is Part 1 of a two-part article

It is an honor to sit here at the desk of TDI’s public relations director and assist in furthering TDI’s mission of shaping an accessible world. I can’t help but to reflect on my many adventures that lead me to TDI, and how they’ve discreetly prepared me for the life of an advocate.

But first, I’d like to share a glimpse of my interactions with TDI’s partners, members, and general community over the couple years. I’ve seen a common thread about the work we do, leading me to deeply contemplate how I, as the new Director of Public Relations, can help better position TDI and our community into a more advantageous position for our rapidly changing technological future.

When working with industry partners or coalition organizations, I am certain to receive the question, “How’s Claude!?” followed by expressions of respect and admiration. Claude’s unwavering and steadfast views on accessibility reverberates deeply within the policy makers and their cohorts.

In fact, Claude’s impact is so well known that one industry partner shared a story with me about how they heard of Claude nearly a decade before they ever met — and their encounter was fairly recent. The respect and admiration TDI commands is a testament to its success and policy impact.

TDI members, our backbone, our grassroots advocates are always ready to call and support TDI. It was the most mind-blowing part of my orientation here. TDI’s members eagerly get in touch with us, share their support via membership renewals, donations, and attending our conferences.

This type of relationship is not one I’ve seen before and continues to bring a warm glow when I see them reaching out to us. We are literally nothing without our members.

As with yang, must come a yin. And that is our outreach with the community at large. Despite TDI’s successful advocacy history, the most common question I get from the larger community is, “What’s TDI?” Unfortunately TDI remains largely unknown to the 27 million Americans we represent.

Neither the full name or acronym register any familiarity to them. However, they are always impressed and astonished when I explain what TDI’s mission and organizational activities. This tidbit of knowledge creates a small ripple of awareness about the many other organizations out there fighting for our rights on a daily basis.

Nonetheless, we need to brighten the siren call of TDI. To open more doors and strengthen relationships between TDI and our friends of differing abilities.

Check Out Our Website!

One of the several changes we’re making is improving your experience when visiting our website. Check it out and let us know what you think. Thanks!

tdiforaccess.org

THE QUEST FOR ACCESS Continued on page 11
**THE QUEST FOR ACCESS** Continued from page 10

commissions.

So where do we begin?

By writing this article, I realize, it's here. It is now. This is where we begin. By using this column to share our stories, I hope you, our readers, gravitate and better relate to us. Which in turn will strengthen our bond, leading us to connect with friends, neighbors, and all those within your community.

That said, this article is not a one time topic. I'm not going to write a different prose in each quarterly issue. It will be continuous, one long narrative to help remind us of our 'WHY'. To map where we are and what we are doing to improve the world for our future deaf generations.

It may sound like a monumental task, but I realize — we are each a unique person of differing abilities. Abilities that have given us the strength and determination to continue on, despite the barriers in front of us.

As people born in an inaccessible world, we each have gained experience that armed us with innovative problem-solving skills. This world is already a better place than it was decades ago because of its accessibility features implemented by our predecessors.

When universal design is implemented, in every case it brought forth new solutions, new ideas and new perspectives that shattered traditional and unprogressive mindsets. Creating access is not just a thing that solves a particular problem, it provides a solutions to a far greater range of individuals that were not recognized in the process.

Garage door openers and curb cuts were originally designed for wheelchair mobility. The typewriter was created for a blind person, the phone for a deaf person. In each case, the innovation spurred worldwide use. When you design with accessibly in mind, everyone benefits.

This tells me we must not have the mindset of “Oh, we need to add this accessibility feature for these people” (after a project is completed). Accessibility and universal design should be the first thing on everyone's mind before they start drafting the blueprint.

Not only will we create a world of greater inclusion, but we will be dramatically impacted by the many new innovative ideas brought to the table by sharing our unique abilities.

TDI is an organization that can make this happen. We are dedicated to full accessibility in all areas of telecommunications, information technologies, and media for all deaf, hard of hearing, deafblind, and late-deafened Americans. With our network of policy makers and industry players, we can have a continuous and transformative dialogue with them by citing case examples, showing numbers and statistics, and sharing our success stories.

But before we can do this, it all begins with us — and improving community awareness toward TDI. To start, it is essential you know what TDI is currently undertaking to make this happen.

First is to lay a solid foundation that allows us to retain and build on our relationships with everyone that interacts with TDI. From our members to policy makers, we are now improving our data management systems, and diligently noting every experience we shared together.

With this cornerstone in place, we will move on to better information sharing. As an accessible advocacy organization, we must ensure we are accessible to our community stakeholders. We are improving our website to make all content easily navigable, discoverable, and understood. We are rebranding our use of social media sites and would greatly appreciate your help in sharing and liking our content. We will work on providing more options for you to access our content.

I believe once our avenues of information sharing is abundant and accessible, then we can begin intensive dialogues with our community. This means surveys, fact-gathering and other stories to help us build a consistent and constant stream of information to inspire policy makers into making immediate and lasting accessible improvements for everyone.

Once we have this underway, we will need to revisit our membership system. How can we be better rewarding for people to become members? We have a wide spectrum of members, based on age, type of hearing loss identity, region, culture, language, etc. We know we can’t please everyone, but everyone can be united by a common goal.

This is where we elevate our relationship and send a tsunami of awareness to everyone near and far about TDI. Our relationship can’t grow unless we are open, honest and forthcoming about what we want to see happen.

Now we know about TDI, that leaves me. Allow me to slide away from the desk and tell you about why I am here, let me tell you my WHY. My story. My quest to shape an accessible world...

Next issue: My Story.
early a dozen deaf and/or blind schools across the US have partnered with Apple to start teaching Apple’s Everyone Can Code curricula, Apple’s powerful and intuitive programming language.

Schools like California School for the Deaf - Fremont, Texas School for the Deaf are currently working to include Apple’s comprehensive Everyone Can Code curricula so students from kindergarten to college can learn and write code using Swift. The foundation of the program is Swift Playgrounds, an Apple app that lets students use real code to solve puzzles. But the larger curricula includes teacher guides and lessons, ranging from guiding students in the basics of Swift Playgrounds, to helping aspiring app developers build their first iOS apps.

Apple believes coding and education should be accessible and inclusive. Coding can open up incredible opportunities and be part of the learning experience for students of all abilities. The curricula is designed with accessibility in mind and uses assistive features already built into iPad.

Apple kicked off their announcement with a surprise visit to California School for the Deaf by Apple CEO Tim Cook and Deaf advocate and actor Nyle DiMarco. But their involvement with Deaf education didn’t start there. Earlier this year, over 100 Apple
employees in Austin also visited Texas School for the Deaf to help beautify the campus, and Apple later was named TSD Foundation’s Partner of the Year during their gala.

Students at FSDB Blind Elementary School are learning to use Swift Playgrounds in combination with refreshable braille and large-screen displays to write Swift code.

CSD-F’s elementary department set up a STEAM Studio in in their multipurpose room with daily hands-on opportunities for their students. The middle school is partnering with Salesforce’s engineers for 8-week coding classes.

A variety of cutting-edge technologies are available to students in both the blind and the deaf departments, each of which includes a small number of students with dual sensory needs. Students are ensured accessibility based on the individualized needs the students.

“When we said everyone should be able to code, we really meant everyone,” said Sarah Herrlinger, Apple’s director of accessibility. “Hopefully these kids will leave this session and continue coding for a long time. Maybe it can inspire where their careers can go.”

CSD superintendent Clarke Brooke agrees, “Coding is going to be huge going forward for our school and we aim to see more partnerships between our school and companies in the Silicon Valley. We want our students prepared for these kinds of jobs.”

FSDB President Dr. Jeanne Glidden Prickett echoed a similar statement, “We appreciate working closely with Apple to expand coding educational opportunities for students, aspiring them to STEM careers.”

Apple’s philosophy on accessibility and education isn’t about purposely targeting esoteric use cases such as IEP prep or specialized teaching methodologies.

In fact, there are many apps on the iOS App Store already performing those functions. The company instead believes all students and teachers should have accessible tools that level the playing field for all types of learning, and discover creative uses for them.

Coding teaches many important skills for future employment. By helping promote skills critical for lifelong success, it goes a long way toward impacting the students’ future and their overall career success.

Additionally, the Students interactions with Apple have introduced them to Deaf employees at Apple Stores and given them the opportunity to see how others successfully work in an environment made up of mostly hearing employees and customers.

Apple’s program is already building a foundation for future careers in software development and technology for the deaf and/or blind students.

Initial list of participating schools:

- California School for the Blind (Fremont, CA)
- California School for the Deaf (Fremont, CA)
- District 75/Citywide Programs, New York City Department of Education (New York, NY)
- Florida School for the Deaf and the Blind (St. Augustine, FL)
- Hadley Institute for the Blind and Visually Impaired (Winnetka, IL)
- Perkins School for the Blind (Watertown, MA)
- Texas School for the Blind and Visually Impaired (Austin, TX)
- Texas School for the Deaf (Austin, TX)

Anyone can learn how to start teaching Swift Playgrounds, and there are great resources available at: apple.com/education/teaching-code. Schools interested in learning more about possibly partnering with Apple can contact them at accessibility@apple.com.
Since the inception of the National Deaf-Blind Equipment Distribution Program (NDBEDP), the Federal Communications Commission (FCC) has set aside program funds for national outreach, to raise awareness of the program to potential program applicants and people who can refer them.

Funds are also set aside for FCC-certified state/U.S. Territory programs to conduct local outreach. The national outreach efforts are intended to supplement each program’s local outreach efforts -- always with the goal to help people find their local program via the program website www.icanconnect.org, or the iCanConnect call center at 800-825-4595.

One of the first national outreach decisions was to begin marketing the NDBEDP as iCanConnect -- much easier to remember, say, read, write and sign! The iCanConnect logo was developed so that the program can be consistently identified throughout all marketing channels and materials.

Initial efforts included establishing the iCanConnect website, the 800 number call center, an active social media presence (iCanConnect is on Facebook, Twitter and YouTube), and producing marketing materials for them, including a video public service announcement, (PSA) and a one-page informational flyer.

In the earlier part of the five-year pilot program, national outreach strategies focused on broadly creating awareness of iCanConnect in as many ways as possible. Examples included: producing paid media ad campaigns in national newspapers and magazines; producing a radio spot that ran on a national broadcast radio network; populating billboards in a number of states; and pitching the iCanConnect PSA to national broadcast television networks and their station affiliates.

There were also a variety of presentations given at related national conferences. Guidance for all the state programs’ local outreach opportunities included how to engage state and local government agencies for potential referrals and participation in local iCanConnect outreach events.

Now in iCanConnect’s seventh year — and the second year of the permanent program — a portfolio of accessible marketing materials have been produced, many of which are available on the iCanConnect website for download and/or viewing. They are all available for state programs to use in their own local marketing efforts, and many are featured in national outreach digital campaigns.

There are updated PSA videos in English, Spanish and American Sign Language (ASL) that give a brief overview of the program and direct viewers on how to find their state program. Print materials are also available in braille.

One of the most popular videos features program participants from a number of states using the equipment they received to use social media, video chat, text with family and friends, make phone calls, keep up with community events online, and more.

There’s also a series of brief “Tech Minutes” videos that feature quick overviews of equipment. With constant changes in equipment, those are being updated to focus on common examples of how various types of equipment work together to solve specific daily communications challenges, such as a mobile solution for using a portable braille display with a smart phone.

While the initial years of outreach for the pilot program focused on broad ways to reach as many people, in as many ways as possible, the national outreach program strategies and efforts have continually evolved to keep pace with more sophisticated web, digital marketing and social media industry best practices. With digital and social marketing, marketing campaigns can be
measured far more effectively, and those metrics are carefully analyzed to inform what’s working best, so adjustments can be made when needed.

Now, it’s far easier to analyze iCanConnect website traffic in greater detail, including which state programs’ applications are being downloaded. It’s easy to not only see how many times an iCanConnect video has been viewed, but how often it was viewed to completion, and whether those views resulted in people clicking on the ads to get to the iCanConnect website. Statistics identify monthly and yearly trends, to help continually inform marketing strategies.

iCanConnect digital marketing include Facebook ads and Google keyword searches, all geared to drive people to the iCanConnect website so they can find their local program. These campaigns feature consumers from the program, and support the national outreach priorities the FCC included in the rules for the permanent program, including dissemination of videos in ASL and materials in languages other than English.

The iCanConnect website continues to help people easily find information on how to qualify, see examples of the types of equipment the program provides, and to see how a variety of people in the program have benefited.

In addition to housing the various outreach and marketing materials listed in this article, the website has a collection of profiles of program participants from across the U.S. In each of these stories, people share how iCanConnect equipment and training has positively impacted their lives. Their stories help others to see real-world examples of how iCanConnect helps.

iCanConnect’s disability eligibility guidelines cover a wide range of people with significant hearing and vision loss. Sharing people’s iCanConnect experiences and successes is a fundamental part of what national outreach for iCanConnect is intended to do: help people see how iCanConnect may help them, inform and inspire more people to find their local program and apply, and help people refer others they know to apply. Here are just a few excerpts of many people’s iCanConnect stories:

- **Don in Utah** is a widower who lives with his son’s family and helps to care for his grandchildren. He said his new equipment has helped restore his self-sufficiency - a source of pride. “I have a great desire to be as active as possible,” he said. “I have a difficult time with people trying to help me. Equipment is a very important part of my life, so I don’t have to be dependent. I don’t have to wait for someone to come home. I hope everyone with vision and hearing loss finds the program, like I did. It’s made the biggest difference in the world.”

- **Rosetta in Georgia** described the laptop she received from iCanConnect as “a miracle”. She uses it and the smartphone she received to keep in touch with loved ones all over the world. She also pursues online classes. “iCanConnect has made an awesome difference in my life by helping me communicate instantly with my family, friends and my community. It has opened up global communications for me too, which I never imagined could be possible. It assists people who have been isolated to communicate with the world.”

- **Ridge in Minnesota** found traveling to see friends and family impossible, and daily outings difficult. Now he pursues online classes, and uses Facebook, email and text to stay in touch with family and friends. Though his hearing loss had made him less outgoing, he said the new equipment changed his life. “I didn’t know what I was missing and how much I was struggling until I received my new equipment and training through iCanConnect. I hope everyone with vision and hearing loss finds the program, like I did - it’s made the biggest difference in the world.”

- **Kat in Delaware** said her life experiences have inspired her to help others. With her iCanConnect equipment, she said she’s continuing her education, and pursuing starting her own educational consulting business. She said her appreciation of iCanConnect has inspired her desire to train others who are deaf-blind to use new technology. “It has made my life easier. It has definitely opened up doors for me. I love this program. I would definitely recommend it to other individuals who are deaf-blind.”

- **Ava in New Jersey** is part of a co-parenting family, so she uses her computer to Skype with her dad when she’s with her mom, and to talk to her little brother and sister when she’s with her dad. She has a large blended family and iCanConnect enables her to communicate with everyone on a daily basis. She also likes going on her mom’s Facebook page to look at pictures of family members in Florida. Her iCanConnect equipment also allows Ava to stay in touch with peers – other children with vision and hearing loss – she’s met at conferences and meetings. “It’s a really good program. It provides you with things you need. It makes me feel like everybody else.”

Learn more about iCanConnect and how to find your local iCanConnect program at www.icanconnect.org, or 800-825-4595.
Improving Communications Technologies for People who are DeafBlind –

A Lifelong Company Commitment

Ultratec, Inc.

The Early Years

In the early 1970s, researchers at the Space Astronomy Lab and the Psychology Department at the University of Wisconsin conducted studies on reaction times using various instrument displays for NASA astronauts. In part, the studies looked at ways astronauts could perform if something occurred to impede their hearing or vision, so the researchers turned to people who were deaf, blind, and DeafBlind to study the effects of the loss of vision and hearing.

At the time, Robert Engelke, the founder of Ultratec, was in charge of the laboratory doing the testing. “Through this study,” Rob explains, “I got to know a number of people who were deaf and DeafBlind. I learned firsthand about their challenges using the telephone, and I was introduced to the large, cumbersome teletypewriter devices that were being used by deaf and DeafBlind people to communicate over the phone.” Rob felt there had to be a better way.

Applying his experience with microcomputer chips (new at that time!), Rob invented the first handheld portable text telephone, the VIP Communicator. It was significantly smaller, lighter, and far less expensive than existing technologies. “For the first time, people who were deaf had a portable, convenient way to communicate over the phone,” says Rob. Next Rob designed the Superphone that included a full-sized touch keyboard and a larger bright display. It also had ASCII code as a standard feature.

As word spread through the deaf community of these new text telephone options, a young blind engineer named Noel Runyan from Telesensory Systems contacted Rob about connecting the new Superphone TTY to a dynamic Braille device called the VersaBraille. “Telesensory had looked into using TTYs,” Rob explains, “but none of them had the ability to connect to the VersaBraille device or to use ASCII code.” Rob flew to Palo Alto, California and within two days he and the Telesensory engineer had the Superphone and the VersaBraille working together so that people who were DeafBlind could use the phone by reading text telephone messages in Braille. It was called the TeleBraille.

Over the years Ultratec modified other of its TTYs including the Superprint and the Supercom to work as part of the TeleBraille system. Later, other dynamic Braille system manufacturers collaborated with Ultratec to produce similar devices that connected to Ultratec TTYs. But there were additional needs, not just from people who were blind.

Edith Simons, a person who was deaf and experienced macular degeneration, shared her personal challenges with Rob. To expand the choices for people

Continued on page 17
with varying degrees of hearing and vision loss, Ultratec designed the Large Visual Display (LVD) that displayed text telephone messages on a very large, bright screen for people who had some residual vision.

**The CapTel Era**

In early 2000s, Ultratec began consumer testing on the Captioned Telephone (“CapTel” for short). CapTel phones display captions of everything a telephone caller says, enabling people with hearing loss to catch every word during a call. CapTel service quickly grew and has now become the most popular relay service ever.

Continuing its commitment to the needs of individuals with both vision and hearing loss, Ultratec worked with members of the DeafBlind community to ensure the CapTel service was accessible. Ultratec’s chief engineer, Kevin Colwell, teamed up with Rob’s son Christopher Engelke, who has a PhD in linguistics. They met with members of the National Federation of the Blind, the Perkins School, and the Helen Keller Foundation to gain a better understanding of the communication challenges people who are DeafBlind face.

“Perhaps the most important thing we learned in talking to DeafBlind people and organizations was the huge range of abilities and skill levels in the DeafBlind community,” explains Christopher. “We quickly learned that we need to create options so people could use CapTel service in ways that best suited their own needs and preferences.”

“We also surveyed the available research on barriers that people with vision loss encounter,” adds Kevin, “then focused our product design on eliminating those barriers.” Their findings became the basis for new product development, including aspects such as using a specially designed easy-to-read font, Tiresias, and the ability to “freeze” the display screen to give users more time to view.

Through their collaboration, Ultratec developed different options for people with varying degrees of vision loss. The result are Braille CapTel phones that work with a variety of dynamic Braille displays and allow people who are DeafBlind to read Braille captions of their telephone calls. The team also developed and tested phones that output to a number of high definition displays, which could enable people with limited vision to read captions on TVs as large as 80 inches.

One of the CapTel models, the 2400iB, features a full tablet-sized screen capable of displaying extremely large letters with a variety of colors/backgrounds so that persons with visual limitations can select a combination of size, color, and brightness that works best for them. Another model, the 880i, incorporates a dedicated extra-large display screen with a variety of large font sizes.

**What’s Next?**

“One thing you can count on”, says Rob Engelke, “is that Ultratec will continue its commitment to the DeafBlind community to find more and better ways for people who are DeafBlind to use the telephone.” But the telephone is only the first step says Engelke. “Our objective is to use the best ideas and the best technology available to eliminate as many communication barriers as possible for people who are DeafBlind.

We are now in the process of developing communications technologies for people who are DeafBlind that can be used anywhere and at any time.”

After over 40 years designing new and better options for deaf and DeafBlind people to use the telephone, Ultratec looks forward to the future with hope and excitement.

“Communication technology is advancing at a breathtaking rate”, says Rob, “and Ultratec will do all it can to make sure it works for everyone.”
Once described as the greatest invention since the light bulb, communication facilitators (CFs) were thought to be the answer in ensuring DeafBlind individuals, who communicate using sign language, to have equal access to the videophone and video relay services. A communication facilitator is a skilled signer who copy signs from the caller on a videophone screen. They relay the message, incorporating visual information to the DeafBlind person using their preferred modes of communication, that can be one or more of the following: close vision, tactile sign language, ProTactile ASL, Haptics and Touch Signals. The communication facilitator is usually placed off-screen to allow direct communication.
between the DeafBlind individual and the other caller. Beneficial for the DeafBlind caller because they can express themselves in sign language and communicate directly without having to deal with the written language. Deaf people who use sign language have had the advantage of video telecommunication access for almost 20 years and the technology has rapidly expanded with increased usage. However, the establishment and availability of formal CF programs for the DeafBlind community seems to be stalled.

Nonetheless, the Seattle DeafBlind community members have been fortunate to have access to paid communication facilitators through the Deaf-Blind Services Center (DBSC) for over 10 years. Back in 2007, the former director of DBSC and an innovative force in the DeafBlind community, Jelica Nuccio, first came up with the idea of communication facilitators. Jelica, being DeafBlind herself, and a busy career woman, needed to make many phone calls and recognized the same was true for Seattle's large DeafBlind community with a high percentage of them being gainfully employed. This was also made clear through a survey conducted by DBSC which indicated a low number of DeafBlind individuals had any access to telecommunications. This data was used to successfully advocate for a communication facilitator program and to this day, DBSC is still the only agency in the United States to provide formal CF services. Their program is made possible through a contract with the State of Washington’s Office of the Deaf and Hard of Hearing whose main funding source is through telecommunications relay funds. DBSC also provides training to communication facilitators and CF consumers.

A few years after starting the CF program, DBSC conducted a follow-up survey of the Seattle DeafBlind community and found a 73% increase in telecommunications access. Reportedly, this could have been higher, if not for the fact that some DeafBlind individuals could not get to DBSC office to be assisted by a communication facilitator. DBSC has since expanded CF services to include going to the DeafBlind individual’s home, work site, and other places to assist with facilitating phone calls. DBSC currently has 15 contract communication facilitators and serves an average of 20 DeafBlind individuals per month.

Not too long after DBSC established CF services for the Seattle DeafBlind community, Sam Hawk of Hawk Relay developed a proposal to the Federal Communications Commission (FCC) in the hopes that they would support a national initiative for communication facilitator services. As a result, a pilot program was conducted and coordinated by John Lee Clark, one of the main sources for this article and DeafBlind himself. Unfortunately, this pilot program never really got going due to an investigation into Hawk Relay. During its’ brief stint, the pilot program provided some CF services for approximately 50 DeafBlind consumers, none of which were billed to the FCC due to its’ pilot status.

Before Hawk Relay was charged for fraudulent activity, a petition for clarification concerning the provision of DeafBlind Relay Services (DBRS) was submitted by the American Association of the Deaf-Blind (AADB) with comments supported by other consumer organizations for the Deaf and Hard of Hearing including Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI). While the comments support the use of communication facilitator services as an option for DeafBlind individuals who need it, they urged the FCC to take in account the diversity within the DeafBlind community, and like with the Deaf community, provide a variety of options for relay services that will support functionally equivalent telephone services leading to the increased sense of independence and self-determination for all DeafBlind individuals.

With the lack of other formal CF programs, the DeafBlind community is using other ways to access video telecommunications. One approach is to use a Support Service Provider (SSP), or in Canada, called intervenors. SSPs are individuals who provide human guiding, visual and environmental information, assistance with communication in informal settings, and sometimes assist with transportation. For many years, this was primarily a volunteer service, but a few states have successfully implemented paid SSP programs of various types. Some programs are for personal use, while others are tied to specific services, such as the use of an SSP to support a Vocational Rehabilitation (VR) client with filling out a job application. It is not uncommon for DeafBlind people to ask their SSPs, if available, to assist with facilitating communication on the videophone. For example, the NC Division of Services for the Deaf and Hard of Hearing (DSDHH) has several DeafBlind employees who hire Driver/SSP vendors as a reasonable accommodation to support them in doing their jobs. The Driver/SSP vendor can assist the DeafBlind employee with checking their video messages and making basic phone calls. It is important to note that DBSC does not promote the use of SSPs for CF services due to the significant difference in roles. Furthermore, communication facilitators and SSPs in Seattle are even paid at different rates. Regardless of whether it is appropriate to use a
SSP to facilitate communication on the videophone, there is the issue of who is responsible for paying for the service? Obviously, in the case of a DeafBlind employee using a SSP as an accommodation, the employer would support this expense, while those at home are dependent on whether their state has a paid SSP program for personal and independent living needs.

Another approach to the lack of communication facilitators is the use of sign language interpreters. This was eventually clarified by differentiating between copy signing and interpreting. A SSP, fluent in sign language may be able to copy sign to facilitate a videophone conversation while an interpreter interprets from one language to another, such as English to American Sign Language. It is agreed that when involved in a formal session, such as a conference call or a lengthy phone consultation with a lawyer or doctor, then the use of a licensed sign language interpreter is more appropriate. Again, if this call were to take place at the DeafBlind individual’s home for personal related needs, who pays for the interpreter?

When a communication facilitator program, SSPs, interpreters or the resources to pay for them are not available, DeafBlind people depend on Deaf community members, friends, family members, and Deaf professionals to assist with making phone calls. Several DeafBlind consumers will come to the NC DSDHH regional centers for assistance from the Deaf Services and Interpreting Services Specialists, both positions required to be fluent signers. In some regions, the need is so great that the center will set up specific days and times for DeafBlind consumers to come for this purpose. Something to keep in mind, while DSDHH can accommodate these requests when available or scheduled, there are others in the Deaf community who may find these requests burdensome.
Most states do receive funding that is used to provide free telecommunication equipment and relay services for the Deaf, Hard of Hearing and DeafBlind individuals. There is also funding from the Federal Communications Commission (FCC) for initiatives such as the National Deaf-Blind Equipment Distribution Program (NDBEDP), also known as ICan Connect (ICC). Considering these funds, only a few states such as Louisiana, have been able to advocate for legislation to utilize some of these funds to support paid SSP services for personal use. These SSPs can assist with facilitating videophone calls for personal needs such as making doctor appointments or calling the bank. However, when needing support to make job related phone calls, the DeafBlind individual is expected to get this accommodation from their employer. Other states are working on proposals and advocating to use tele-funds for CF services and other innovations. For example, in Minnesota, John Lee Clark and a committee is advocating for CF services and Email Relay Services. He explained that CF services are appropriate for situations where you can set up an appointment to have an actual conversation, like with family and friends or when you need to discuss something at length, but can’t be available instantly. They hope to set up on-call CF services in metro areas, where a DeafBlind individual can request a communication facilitator to show up within hours. With Email Relay, the DeafBlind individual can send an email to the agency, and an agent will make the call based on the instructions provided. This would be ideal for ordering pizza, reserving a ride, purchases over the phone, making appointments, and leaving a message. The agent can leave the message on an answering machine if the machine picks up, or relay messages to a live person who answers. This would be ideal for ordering pizza, reserving a ride, purchases over the phone, making appointments, and leaving a message. The DeafBlind individual would also be able to receive messages in this way by giving out a phone number that will contact the Email Relay agent who can take down messages and email it to the DeafBlind individual. The goal is for agents to respond promptly and then perform the task within minutes.

In summation, the access to video telecommunication technology for the Deaf community has prospered with different Video Relay Service companies popping up all over the country, offering a wide range of options, devices and viewing platforms to ease and comfort. While the FCC supports the National Deaf-Blind Equipment Distribution Program (NDBEDP) which ensures the DeafBlind community members can get the devices needed to access telecommunications, the options for a DeafBlind individual who communicates primarily in sign language is not advancing. Imagine if innovations stopped at the design of the first light bulb? That crude, heavy, glass fixture would become so hot, it could melt surrounding objects. Without encouraging the innovations and electrical advances over the years, we would have never gotten to the much improved, long-lasting, energy-saving, brighter and always cool to the touch LED light bulb.

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1 DeafBlind: Even though the Federal definition includes the hyphen as in “Deaf-Blind,” the author, being DeafBlind herself will use the cultural perspective of putting the two together, in acknowledgement of all aspects of the individual and community.
2 ProTactile ASL: The use of tactile American Sign Language with modified signs that utilize the DeafBlind person’s body to describe placement, size and spatial aspects of communication.
3 Haptics: The use of a standardized system of touch signals to convey visual, environmental and social feedback information.
4 Touch Signals: The general term used to describe providing visual, environmental and social feedback information through touch on the body.
A Partnership Enabling Deaf and DeafBlind People to Communicate with Each Other with Real Time Text — RTT

BRYEN YUNASHKO, ACCESS 256

nWise has developed a software called myMMX db. It is a total conversation software that enables DeafBlind individuals to communicate with hearing people and with each other via relay services. It uses RTT (Real Time Text), which is a standard for communication using text defined by the ITU-T (International Telecom Union) and enforced by the FCC.

myMMX db is available in the United States through a partnership between the developer nWise and Access 256. myMMX db is used to provide access to Video Relay Services (VRS) by DeafBlind individuals who use ASL as their first language. Global VRS is the only VRS provider that is providing access to DeafBlind consumers that want to use ASL, but who need to receive communication in text – either large text on the screen or via a braille display that is connected to their computer.

According to Bryen Yunashko, owner of Access 256: “the product myMMX db was primarily presented to me as a tool for communicating with hearing people via video relay services. And it was very well built. However, once I sat down to work with it, I realized its real gem was in the ability to communicate with Deaf and DeafBlind people. That’s the Holy Grail that’s been missing in telecommunications accessibility for DeafBlind callers!”

The important perspective of the Deaf and DeafBlind users

Bryen describes the partnering with nWise as a great experience: “nWise is open and very collaborative and I feel like a valued partner. And we at Access 256 have brought a new important perspective to the table, our cultural connection to the Deaf and DeafBlind communities.”

The cooperation has been crucial not only for the launch of the myMMX db in the American market, but also for enabling nWise to further develop the product. From a development perspective, we at nWise were able to understand the adjustments that needed to be made – not because the software was not working properly, but so it would follow the logical thinking of a DeafBlind individual when making a telephone call via a VRS.

Thor Nielsen at nWise has been working with marketing and sales of the myMMX db, and its adaptation for the American market. “Our cooperation with Access 256 has been key for making concrete improvements in the software, since Bryen was able to explain to us how small details would make the flow of the calling process much easier, and also how Real-Time Text could be read clearly by DeafBlind individuals. Bryen has also been key in following up contacts with agencies that work with the DeafBlind communities, and setting up a training plan based on how a DeafBlind individual is making telephone calls and communicating during the call”, Thor says.

Thor adds: “but above all, our cooperation provides me with a direct connection with the consumers that I couldn’t achieved previously. I’ve had the privilege to participate and interact in several workshops with customers that Access 256 been hosting.”

We, both nWise and Access 256, agree that we still have work to do in total equal access to communication and information in the world around us. But, we’ve taken a big step forward in that direction through our collaboration!

For more information, you can contact Mr. Yunashko at bryen@access256.com.
Voice and data plans may be required when using Hamilton CapTel on a smartphone or tablet.

Internet Protocol Captioned Telephone Service (IP CTS) is regulated and funded by the Federal Communications Commission (FCC) and is designed exclusively for individuals with hearing loss. To learn more, visit www.fcc.gov. Hamilton CapTel may be used to make 911 calls, but may not function the same as traditional 911 services. For more information about the benefits and limitations of Hamilton CapTel and 911 calling, visit www.HamiltonCapTel.com/911. Copyright © 2018 Hamilton Relay. All rights reserved. Hamilton is a registered trademark of Nedelco, Inc. d/b/a Hamilton Telecommunications. CapTel is a registered trademark of Ultratec, Inc.
Introducing Twelve Famous DeafBlind Americans

Helen Keller (1885 - 1968) was born able to see and hear. When she was 19 months old, she had scarlet fever or meningitis, which rendered her as both deaf and blind. In 1887 Keller’s life changed forever when she met Anne Sullivan who would later become one of her greatest teachers and her lifelong companion. Sullivan began by teaching Keller how to spell words into her hand. The first word Keller learnt was “d-o-l-l” for the doll Sullivan had brought her as a gift. In 1904, Keller graduated from Radcliffe College and thus became the first deafblind person to earn a Bachelor of Arts degree. She was a world-renowned speaker and published 12 books. She was an active fundraiser for the American Foundation for the Blind. In 1964, U.S. President Lyndon B. Johnson awarded Keller the Presidential Medal of Freedom. ¹

Edith Simons (1920 – 2015) was a graduate of Kenosha High School in Kenosha, WI and a short-term training course in physical therapy in Milwaukee, WI. She began college at age 55. She attended Gallaudet University for the Deaf and Hard of Hearing in Washington, D.C. and the University of Wisconsin-Parkside. Through her work on the Wisconsin Governor’s Committee for People with Disabilities and the Wisconsin Telecommunications Relay System Council, a few major changes were implemented in Wisconsin such as: establishing the State Bureau for the Deaf and Hearing Impaired, the Kenosha Telephone Relay System, TTYs placed in hospitals, libraries, and fire stations, and the installation of a 911 TDD emergency line. In 1977, she was a delegate to the White House Conference for Handicapped People and in 1989 a U.S. representative to the Helen Keller World Conference on Deaf Blindness held in Stockholm, Sweden. ²

Laura Bridgman (1829-1886) was two years old when she became sick with scarlet fever. Once she healed, it became apparent that she had lost her sight, hearing, smell, and taste in the process. The one sense remaining she had was touch. Her only real method of communication was a very simple form of tactile sign language. Fortunately, for Bridgman, Perkins School for the Blind was opened in 1832. By 1837, Dr. Samuel Gridley Howe wanted to try and see if he could find a way to teach Ms. Bridgman language. She finally grasped that objects have names, then the concept of an alphabet, and to use the alphabet and words in communicating. She attended classes like any other student at Perkins, using finger spelling with her teachers and others. Howe also published an account of Bridgman’s education, which drew the interest of famous British author Charles Dickens who came to meet her, aged twelve in 1842. ³

Haben Girma (1988 - ) was born deafblind in Oakland, California in 1988, after her mother fled Eritrea in 1983 and met her father, an Ethiopian, in California. She graduated magna cum laude with a Bachelor of Arts degree in Sociology/Anthropology from Lewis & Clark College in 2010. Then she became the first deafblind student to attend and graduate from Harvard Law School, earning her Juris Doctorate degree in 2013. In 2013, Girma joined Disability Rights Advocates (DRA) in Berkeley, California as a Skadden Fellow. While working for DRA in July 2014, Haben represented the National Federation of the Blind and a blind Vermont resident in a lawsuit against Scribd for allegedly failing to provide access to blind readers, in violation of the Americans with Disabilities Act. Scribd moved to dismiss, arguing that the ADA only applied to physical locations. In March 2015, the U.S. District Court of Vermont ruled that the ADA covered online businesses as well. A settlement agreement was reached, with Scribd agreeing to provide content accessible to blind readers by the end of 2017. In April 2016, Girma left DRA to take up non-litigation advocacy full-time. In summer 2017, she gave a keynote address for the Professional/Motivational Luncheon at the 22nd TDI Biennial Conference in Rockville, Maryland. ⁴

Arthur Roehrig (1943 - ) was born in Malone, Wisconsin. He attended St. Rita School for the Deaf in Cincinnati, OH. Then he went to Gallaudet and received two degrees there, a Bachelor of Science in Mathematics in 1968, and a Masters of Rehabilitation Counseling in 1974. He taught mathematics for several years at the Maryland School for the Deaf in Frederick until he
experienced significant vision loss. He was employed at Gallaudet for nearly thirty-five years in several different capacities in the College for Continuing Education, and Office for Students with Disabilities Services, retiring in 2012 as a human development counselor. He has traveled a great deal to give workshops on deaf blindness and mental health issues. He has given his time as a member and a leader of the American Association of the Deaf-Blind (AADB) and Metro Washington Association of the Deaf-Blind (MWADB). From 1996 to 2005, he was Vice President of American Association of the DeafBlind (AADB), and then served as its President from 2005 to 2009. He has faithfully represented AADB in monthly meetings with the Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN) since its’ founding in 1992.  

Dr. Jeff Bohrman (1944 - ) has worked in the field of vocational rehabilitation from 1993 to 2013, with an expertise in serving people who are deafblind. Jeff received a B.S. from Dickinson College, Carlisle, PA; a B.S. from the University of Pittsburgh School of Pharmacy; an M.S. from the University of Illinois, Medical Center; and a Ph.D in Pharmacology-Physiology from the University of the Pacific, Stockton, CA. He worked as a research scientist for the federal government and was instrumental in establishing the Ohio Deaf-Blind Outreach Program at the Columbus Speech & Hearing Center, and the Ohio Association of the Deaf-Blind. Jeff served in different capacities with the American Association of the Deaf-Blind (board member, president, first vice-president and treasurer). He has received numerous awards for his outstanding efforts in developing supports and services for people who are deaf-blind. Jeff has held memberships in the American Council of the Blind and the World Federation of the Deaf-Blind, and served on a number of advisory boards including the Ohio Center for DeafBlind Education and the Helen Keller National Center.

Anindya “Bapin” Bhattacharyya (1970 - ) was born deaf in a small village in India, where there was no running water, electricity, or motor vehicles. He became blind at age nine after another child threw ashes in his eyes, causing his retinas to detach. With no education for deafblind people, Bapin sat at home with nothing to do for four years. Fortunately, Bhattacharyya was able to secure a scholarship to study at the Perkins School for the Blind in Watertown, Mass., and a generous businessman who was introduced to the family by the principal of a blind school in Kolkata funded his airfare to the United States. He continued his studies at Gallaudet University, where he received his Bachelor of Arts degree in Deaf Studies and his Master of Arts degree in American Sign Language Interpretation.

Haben Girma: A Champion of Change, as honored by the White House in 2013
The White House recognized Haben Girma as a Champion of Change on February 26, 2013. The White House Champions of Change Program honors ordinary Americans doing extraordinary things, and for that year 2013, the Champions program chose to honor those who have taken extraordinary strides for America’s students. Haben and nine other Champions discussed important changes in education that would help students across the country. The event took place at the Eisenhower Executive Office Building in The White House. In addition to friends and family, the events’ audience comprised of U.S. Dept. of Education officials, including Secretary Arne Duncan, and White House officials. During her segment of the program, Haben stressed the importance of high quality teachers for students with disabilities, the invaluable support of state deafblind projects, and the need for schools to consider accessibility when investing in emerging technologies. Ms. Girma came back to the White House in July 2015 to help introduce President Barack Obama and Vice President Joe Biden at the White House 25th Anniversary Celebration of the Americans with Disabilities Act.
education, graduating from the University of Arkansas, Little Rock, in 1998 with a B.A. in political science. He is now an adaptive technology instructor with the Helen Keller National Center. He also owns a business, BapinGroup that produces adaptive or assistive technology products for deaf people who also are blind, low vision, or have other disabilities. Thanks to technology, he can catch a flight or a train with the help of an iPhone, and with a special global position system manufactured by Sendero Group, he can find the location of streets—even places to eat pizza. From his website, http://bapin.info, he says, “Like everyone else, deaf-blind people also have dreams to achieve successful lives and education. Many people assume that, without sight or hearing, deaf-blind people could not lead “normal” lives. We need to remember that no one has a “normal” life or can ever go through anything without struggles.”

Rochelle “Shelly” Franks (1956 - 2008) was born in Philadelphia, Pennsylvania on October 23, 1956. She had Usher Syndrome since birth. After graduating from the Model Secondary School for the Deaf in Washington, DC in 1974, Ms. Franks attended Gallaudet University, where she received a bachelor’s degree in sociology in 1979. She earned a Certificate of Paralegal Studies from George Washington University in 1982, and a master’s degree in rehabilitation counseling from Gallaudet University in 1985. Ms. Franks worked for three years as a federal contractor before joining the Securities and Exchange Commission (SEC) as a personnel specialist in 1988. In 1996, at the SEC, she became a disability program coordinator, and then a program officer in 2002. She was co-author of the agency’s reasonable accommodations procedure manual, which became a model for other federal agencies. She was very active in the deaf-blind community in the greater Washington area and nationwide. She was a long-time Board member and Executive Director of Deaf and Hard of Hearing in Government (DHHIG), and chaired one of its’ national training conferences. She also served as one of the founding members of the Northern Virginia Resource Center for Deaf and Hard of Hearing People in Fairfax, Virginia.

Danny Delcambre (1959 - ) was the first deaf-blind restaurant owner. He operated a Louisiana Cajun cuisine restaurant, Ragin Cajun, which was located outside the Pike Place Market in Seattle, WA. Delcambre, now 59, is a Louisiana native who has been deaf since birth and has severe tunnel vision, thus he can see only what is directly in front of him. He studied culinary arts at Seattle Central Community College for a year and then interned for New Orleans chef Paul Prudhomme for a few months before coming back to Seattle to strike out on his own. A counselor from the Small Business Association helped him through the tough process of getting a loan and setting up the business. He was honored as the Small Business Employer of the Year by U.S. President Bill Clinton. President Clinton had sampled his meals, even sending one of his Secret Service agents on one occasion to pick up his order and bringing it to Air Force One. He got the Small Businessman of the Year awards by the City of Seattle and the State of Washington. “I’m not surprised by how well this (had)

Barbara Walters’ Most Memorable Interview with Robert & Michelle Smithdas

One of the most amazing couples Barbara Walters has ever interviewed was Robert and Michelle Smithdas, a married couple, both blind and deaf. Walters mentioned having Robert and Michelle Smithdas in October 1998 for the ABC news magazine program, 20/20 as her “most memorable interview.” “They are inspirational,” Walters said. During the interview, Walters asked Robert Smithdas, who had never actually seen his wife, to describe what Michelle Smithdas looked like. “First of all, she is petite and rather delicate, very delicate bone structure,” Robert Smithdas told Walters.

When Walters asked if Michelle Smithdas ever wondered if being deaf and blind happened to her for a reason, Michelle Smithdas said, “No, I do not question it. I should say that I am rather happy for what I am able to do and for what I have.”
worked out," Delcambre said. "I know deaf people can succeed. It’s other people who are surprised."  

Robert Smithdas (1925-2014) lost his vision and nearly all of his hearing after contracting cerebrospinal meningitis at age 4. He was pivotal in getting Congress to authorize creation of the Helen Keller National Center for Deaf-Blind Youths and Adults (HKNC) in 1967. His primary modes of communication were the Manual Alphabet and Braille, but he was also one of the few deafblind Americans who could use the Tadoma method to read people’s speech with his fingers on their lips and throat. He attended the Western Pennsylvania School for the Blind and the Perkins School for the Blind. He graduated with cum laude honors from St. John’s University in Queens in 1950, and in 1953 he was the first deafblind person to earn a master’s degree in America from New York University in vocational guidance and rehabilitation of individuals with disabilities. He was employed at HKNC from 1969 to when he retired as Director of Community Education in 2009. In 1965, Smithdas was named "Handicapped American of the Year" by U.S. President Lyndon B. Johnson’s Committee on Employment of People Who are Disabled. In 1990, he was a guest at the White House when U.S. President George H.W. Bush signed the Americans with Disabilities Act into law. His widow, Michelle, herself deafblind, too, lives now in Fort Collins, Colorado.

Jamie Pope (1961 -) is a consultant, providing workshops and consultation related to deafblind people. She became deafblind during early childhood due to illness. Formerly, she was Executive Director of the American Association of the Deaf-Blind (AADB), a national consumer advocacy organization of, for, and by deafblind people. She served in this capacity for eight years, increasing the visibility of AADB and the national deafblind community with federal government agencies and U.S. Congress. Before AADB, she worked as Technical Assistance Specialist with the National Technical Assistance Consortium on Children and Youth who are DeafBlind (now called the National Consortium on Deaf-Blindness). She was a critical force in establishing the National Task Force on Deaf-Blind Interpreting (NTFDBI) in collaboration with Registry of Interpreters for the Deaf. She holds a Masters degree in Social Work from Catholic University of America in Washington, D.C.

Randy Pope (1954 -) Randy Pope is a long-time, steadfast advocate of deafblind people on the national and state levels, spanning over 25 years. Of his many accomplishments, the most notable was his persistence successfully advocating Congress to pass the 21st Century Telecommunications and Video Accessibility Act. This Act included a provision for $10 million a year to purchase communication equipment for deafblind people on low-income. He spearheaded the legislative training for deafblind people during the American Association of the DeafBlind national conference in Maryland, which included having visits with legislators on Capitol Hill in Washington, DC. He became a trainer in emergency preparedness under TDI’s Community Emergency Preparedness Information Network (CEPIN) program. He served for a total of four years as President and Executive Director of American Association of the DeafBlind. Randy has Usher Syndrome and has not let that stop him from leading a great life, including successfully raising seven sons from a first marriage.
TDI’s Interview with Jackie Ellington
FCC’s NDBEDP Administrator

1.) Briefly introduce the NDBEDP and its few years’ history of serving the nation’s deaf blind community.

The National Deaf-Blind Equipment Distribution Program (NDBEDP), also known as “iCanConnect,” provides equipment to make telecommunications, advanced communications, and the Internet accessible to low-income individuals who are deaf-blind. Being connected is essential for productivity and engagement in today’s world.

The iCanConnect program was authorized by Congress in the Twenty-First Century Communications and Video Accessibility Act of 2010 (CVAA). Specifically, the CVAA authorizes the Federal Communications Commission (FCC) to use up to $10 million annually from the Interstate Telecommunications Relay Service Fund to support programs that distribute communications equipment to low-income individuals who are deaf-blind. For this purpose, on July 1, 2012, the FCC launched iCanConnect as a pilot program. For the pilot program, the FCC certified 53 entities – one for each state plus the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.

Programs that are certified under the iCanConnect program help eligible participants stay connected with family, friends, and community by providing equipment that makes the following services accessible:

- voice communication by phone or over the Internet;
- advanced communications, such as e-mail, text messaging, and instant messaging; and
- Internet access, including information services.

The equipment may be mainstream or specialized hardware, software, or applications, and must meet the needs of the deaf-blind individual to achieve access. For example, these state programs may provide computers, mobile devices, phones, software, and refreshable Braille devices.

In addition to distributing communications equipment to eligible deaf-blind individuals, certified state programs may also provide related services, including communication and technology assessments, equipment installation, training on the equipment they distribute, and equipment warranties, maintenance, and repairs.

The Perkins School for the Blind serves as the FCC’s national outreach coordinator for iCanConnect. In this role, Perkins supplements outreach conducted by certified state programs at the local level. Perkins has established a website (www.icanconnect.org), developed an active social media presence, produced public service announcements and other marketing materials, and conducted various advertising campaigns.

The iCanConnect program is now in its seventh year. On July 1, 2017, the FCC converted the pilot program to a permanent program and added three more territories – American Samoa, Guam, and the Northern Mariana Islands – to the iCanConnect service area.

2.) Which states and U.S. territories are certified to participate in the program?

The iCanConnect program serves eligible residents of all 50 states, the District of Columbia, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands.

To find contact information for the iCanConnect program that serves your state, go to www.icanconnect.org/states or call 800-825-4595. You may also send an e-mail to the FCC’s Disability Rights Office at dro@fcc.gov or call the FCC at 1-888-225-5322 (voice), 1-888-835-5322 (TTY), or 1-844-432-2275 (videophone).

3.) How many individuals that are deaf-blind have benefited from participating in the program?

During the first five years of the program (2012-2017), certified state programs served approximately 5,300 eligible individuals.

4.) What are the eligibility qualifications for individuals to participate in the program?

To participate in the iCanConnect program, an individual must be
low income. For iCanConnect, low income means that the applicant's household income cannot be more than 400% of the Federal Poverty Guidelines.

Eligible program participants must also be deaf-blind, which means that an individual must have a combination of vision loss and hearing loss that causes extreme difficulty in attaining independence in daily life activities, achieving psychosocial adjustment, or obtaining a vocation. The vision and hearing loss must meet the following eligibility criteria:

- **Vision loss** – at least one of the following conditions:
  * Central visual acuity of 20/200 or less in the better eye with corrective lenses;
  * A field defect such that the peripheral diameter of the visual field is no greater than 20 degrees; or
  * A progressive visual loss with a prognosis leading to one or both of these vision loss conditions.

- **Hearing loss** – at least one of the following conditions:
  * A chronic hearing impairment so severe that most speech cannot be understood with optimum amplification; or
  * A progressive hearing loss having a prognosis leading to this hearing loss condition.

### 2018 iCanConnect Low-Income Guidelines

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<th>Number of persons in family/household</th>
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<th>For Hawaii</th>
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</tr>
</tbody>
</table>

| For each additional person, add      | $17,280                                  | $21,600    | $19,880    |

5.) Briefly explain your working relationship with the states and US territories that are part of the program.

Jackie Ellington has been the designated FCC NDBEDP Administrator since 2012. She works with the certified state programs on a daily basis to answer questions and provide guidance. She also reviews requests submitted by the certified state programs for the costs they incur in distributing equipment and providing related services, along with making sure that these programs submit their required reports on a timely basis. In addition, Jackie answers consumer inquiries and works with the certified state programs and consumers to resolve complaints as satisfactorily as possible. To contact Jackie Ellington, e-mail Jackie.Ellington@fcc.gov or call (202) 418-1153.

For more information about the program, visit www.fcc.gov/NDBEDP or www.iCanConnect.org or call 800-825-4595.
TDI’s Interview with Ryan Bondroff
Customer Relationship Manager
National DeafBlind Outreach Program
Sprint Accessibility

1.) Briefly introduce yourself. Were you born deaf-blind or did this occur in later life? Where did you grow up? Did you have a deaf family or a hearing family? Maybe even a mixed family - some deaf/hard of hearing and others hearing? Where did you go to school for K-12? College/university? Highest degree you have attained. What job do you have and with whom? If you can comment a bit about your previous employment, this would be good, too.

I was born and raised in Baltimore, Maryland to a hearing family. I am the only DeafBlind member of my family. I was diagnosed with Usher’s Syndrome. I consider myself culturally Deaf and DeafBlind.


After my graduation from Gallaudet, I held various jobs within the Deaf, DeafBlind, and Hard of Hearing non-profit organizations and state governmental entities. During my time with these organizations, I returned to Gallaudet University to complete my Master’s in Social Work in 2003. I continued in the non-profit and government sectors prior to joining Sprint Accessibility in 2016.

I am the Customer Relationship Manager for the National DeafBlind Outreach Program at Sprint Accessibility. I am responsible for the national outreach of Sprint Accessibility Services to the DeafBlind community with a focus on internet protocol (IP) relay.

2.) What have you and others at Sprint Accessibility done for the deaf-blind community? What programs and services does Sprint Accessibility offer to its deaf blind customers, especially the Sprint IP Relay service? Which organizations are you heavily involved with, and why you enjoy doing things with these groups?

The most significant accomplishment Sprint Accessibility has done is to provide an accessible Sprint IP Relay web-based application and Mobile app for DeafBlind individuals. In addition, Sprint Accessibility has created accessible marketing material in either large print or braille formats for doing outreach activities to the DeafBlind community. Other than the Sprint IP Relay service to the DeafBlind, Sprint Accessibility provides full range of products and services to the DeafBlind community in the United States and their territories.

I am currently serving as Vice President of Washington State DeafBlind Citizens as well as being an advocate for the DeafBlind.

3.) What is your vision for the future of the deaf-blind community? Are you optimistic or frustrated, or both with what is generally happening in America?

I am both optimistic and frustrated about the elements of the DeafBlind community, for instance, most DeafBlind individuals are unwilling to learn Braille and struggle to read visually until much later in their life causing them to read Braille at a slower pace. Despite the challenges and frustrations that are taking place in the DeafBlind community, I continue to be optimistic that the DeafBlind will be on a level playing field when it comes to their telecommunications needs given that Sprint Accessibility is in the forefront of ensuring accessible telecommunications for the DeafBlind.

4.) How best can TDI, other consumer groups, industry, and government can serve yours and others’ deaf-blind needs and issues in telecommunications, media, and information services? Are there some areas you feel we should work on, that we haven’t had in the past? Are you aware of our work with the FCC for areas like emergency communication, relay services, captioning on TV and the Internet, broadband access, and etc.?

TDI, consumer groups, industries and government agencies continue to work together as a team and include DeafBlind individuals, adding protections for the DeafBlind community who needs full communication access to all the information highway systems across all areas, including full access to reading formats such as large print and Braille. The most significant part of this effort to include DeafBlind individuals and their choice of reading formats language must be included in all areas including local, state and federal policies, regulations and laws.
TDI’s Interview with Jelica Nuccio
Founder, Tactile Communication
Seattle, Washington

Jelica Nuccio is a Deafblind woman in the forefront leading the development ProTactile ASL — the socio-cultural philosophical and linguistic movement currently shaping all DeafBlind interpersonal practices.

Nuccio originally from Croatia, has been very active in the DeafBlind community since before she moved from Atlanta in 1997 to become the first DeafBlind Director at the DeafBlind Service Center (DBSC) in Seattle. Jelica is also co-author of a curriculum to teach DeafBlind people on how to get the most out of their Support Service Providers (SSP).

Jelica Nuccio is currently the founder of Tactile Communications, a training center based on the ProTactile philosophy and DeafBlind Education. Previously, Jelica worked in various positions as a research coordinator, advocate and job developer. Jelica has a B.A. in Biology from RIT in Rochester, and an M.A. in Public Health from Emory University in Atlanta. For the past 25 years, she has been active in the local and national DeafBlind communities. She lives in Seattle with her husband of 35 years, Vince, and two energetic dogs.

1.) Briefly tell us more about yourself. What was it like growing up?

Hello, I am Jelica Nuccio. My name sign is the same as for Yugoslavia (Y handshape coming down from my left shoulder to my waist). Although that country is now called Croatia, my name sign remained the same. I think I was born deaf, but the concept of deafness was not well understood where I grew up. My father’s cousin was a doctor, and he was the first to notice I was deaf around the age of two. He and my parents would try to test my reactions by clapping behind my back. When I turned around, they thought I was not deaf, but really I felt the air movements from their clapping. My parents had a hard time accepting the fact that I was deaf. My first hearing aids were German as my parents thought that was the best technology available back then.

The house where I grew up had been passed down through several generations. My family was the first to move away, and we came to America. It was a big adjustment for me. My parents and I moved first to New York, and then my mother and I relocated to Alabama, trying to find the school that best meet my needs. My father found a job on a banana plantation in Belize.

In Alabama, I went to a school with a deaf program near the Gulf of Mexico. Everyone there signed! It was a new experience for me. But when I went home to visit my mother, she could not understand me signing and wanted me to speak with her. So she sent me away to St. Joseph’s Institute for the Deaf, an oral school near St. Louis, Missouri. For the next five years, signing was forbidden. After I graduated from eighth grade, I was enrolled in a mainstream program at a high school program near my parent’s home in rural Alabama. I was the only deaf student in the history of that high school even today, 30 years later.

After I graduated from high school, I chose National Technical Institute for the Deaf (NTID), a college within Rochester Institute for the Deaf because I wanted to meet other deaf people like myself. NTID has a mixture of deaf, hard of hearing, and hearing students, which was why I selected that school as a compromise to my parents who wanted me to go to a prestigious university.

NUCCIO Continued on page 32
At NTID, after I noticed some problems with my eyesight, I was diagnosed with Usher's Syndrome. Many of my friends said I should reconsider my education plans. I felt that I should be the one to decide when things are OK or when things become too much for me. I kept going as originally planned, and graduated with a BA in Biology in 1988.

I found a job at Emory University in Atlanta where I worked for ten years in medical research. My first research project was to study pregnancy among older women that are prone to many issues affecting the health of the infant, and I was able to prove that many of those issues are not always related to the age of the mother. This had an impact on bioethics where genetic counselors work with parents on the probability of congenital issues that may influence their decisions.

My work at Emory University where I attained a Masters Degree in Public Health in 1996.

2.) Which organizations are you heavily involved with, and why do you enjoy doing things with these groups?

I first got involved with the deafblind community while I lived in Atlanta. I started the Georgia Association of the DeafBlind in 1989, remaining active there until I left in 1997. Then I moved to Seattle and started my new job at the DeafBlind Service Center (DBSC) as their first deafblind Executive Director. After that, I also worked with the Helen Keller National Center as a Braille teacher. I was able to participate in several community activities such as advocacy, linguistics, interpreter training, research, and other educational activities. Back then, Seattle has a strong deafblind community with an abundance of Support Service Providers (SSPs), and an extensive public transportation network.

Around that time I met aj granda, and we both founded the Pro-Tactile movement as a way to improve communication among deafblind people. Pro-Tactile is a revolutionary concept that empowers deafblind people to make informed decisions based on the increased awareness of what is happening around them. This philosophy goes beyond the deaf community's visual-centric way of living to an environment based on touch. For example, I reminded Jim House during the interview to keep tapping me on my arm or leg to let me know he is receiving my signs - similar to responding with facial expressions to my story. Pro-Tactile has the same capability to enrich the lives of deafblind individuals just like sign language and other methods do for people who are deaf or hard of hearing and sighted.

I established Tactile Communications, LLC to provide training for deafblind individuals. Tactile communication maximizes the autonomy of deafblind people in a linguistically and culturally appropriate setting. This gives deafblind people the tools they need to become active, productive members of society, and improve the quality of their lives. For more information, go to www.tactilecommunications.org or search online for “Tactile Communications”.

3.) What is your vision for the future of the deafblind community?

In 2017, Pro-Tactile has finally been recognized as a tactile language for the deafblind community fifty years after American Sign Language was recognized as a visual language for the deaf community. The next thing I would like to see is technology powered by touch. Our technology today is driven by audible and visual interactions, but not tactile interactions. Texting and captioning are both visual word-based technology which does not provide autonomy for us. The current technology forces us to rely on interpreters for information. I want to be able to access that information independently through touch.

One example is that we depend a lot on paratransit systems. The ADA requires that public transportation systems be available for people with disabilities. However, in order to make travel arrangements to the doctor or other destinations, we must make a voice or relay call to the dispatcher. This again requires us to depend on a third party to book a ride. Texting is not an option for many transportation providers.

Ridesharing apps like Uber or Lyft require us to view our mobile devices to learn when the driver arrives to pick us up. Again, no technology exists to convey information by touch. My passion for this type of advocacy is based on a simple human need to access information independently in a way that I can understand and respond.

4.) Let’s talk about how you use technology. What are some of the barriers you face in telecommunications and accessing information?

There are many categories of barriers. We start with (lack of) access to 911 services. I don’t even know how to use 911. A sighted person can make a 911 call or text. There is no existing technology that will allow me to call for help on my own except for Sprint IP Relay, only one service provider I can use. If that goes away, what is left?

If there is a snow storm or severe weather, how do I know if the roads are impassable or clear? I would have to check the bus system, again by calling, not texting.

During emergencies, first responders panic because they do not know how to communicate with deafblind people. I ask them to allow me to touch their badge so I know for sure who I am working with. Print on palm (POP) is when people write letters on the palm of my hand, but they cannot seem to grasp it when I write back on their hand. If I
need to be evacuated immediately, some responders know to draw a large “X” on my back as a signal.

Deafblind people have a responsibility to be prepared for emergencies and other unexpected events. We have buddy systems and other support to back us up. Our goal is for us to receive alerts and emergency notifications at the same time as everyone else.

Other barriers are touchscreen kiosks in libraries and government agencies such as Social Security are either voice or text activated. Onscreen keyboards are difficult for us to use. ATMs and other touch screen kiosks do not have Braille except for small signs that tell you where to insert the headphone jacks. Government agencies and companies often design websites that may meet minimum access standards which are inadequate for some users. I will need to have a Support Service Provider (SSP) with me all the time to help me use the technology, albeit without privacy and independence.

The I Can Connect program under the FCC’s National Deaf Blind Equipment Distribution Program only provides telecommunication equipment to low income deafblind individuals but they are required to maintain their own phone or Internet service. The equipment that ICC offers cost several thousand dollars retail, putting it out of reach of individuals who do not qualify. For more information, go to www.iccanconnect.org

For most video calls, a communication facilitator (CF) interprets what the other party or the interpreter says on the screen, and we sign back directly to them. If I need to make a relay call, I prefer Global VRS as they have an amazing service that does not require a CF. The VRS interpreter types what people say, and I read it on my Braille machine at home, then I sign back to the interpreter independently.

However, only a very small percent of people who grew up deaf and later became blind do know Braille. It becomes more difficult to learn new ways of communication as you become older.

I do not go to the movies because captions are not accessible. I would love to be “on the movie set where I can feel the actors around me.” Not sure how that works, but virtual or augmented reality with holograms might be part of the solution.

As for online movies, major providers such as Netflix, Amazon Prime, and Hulu come with captions, but we cannot read them without an external connection to a Braille machine. Even if there is such a device, the pace of captions will render them unreadable by touch. Unlike TV captions, there are no speaker identification protocols in online captions.

My dream technology is that I hope someone can invent gloves that will allow us to receive text and audio information through touch. Most of the information we receive is text based and often requires another person to relay that information. These gloves could read sign language, captions, text and graphics directly into our hands so I will not miss anything. The possibilities are endless. Perhaps someday soon a robot could translate everything for me that is out there.

5.) How can TDI, other consumer groups, industry, and government best serve deafblind needs and issues in telecommunications, media, and information technology services?

In recent years American Association of the DeafBlind (AADB) has become less active in advocacy for the deafblind community in Washington, D.C. I feel it is important for TDI and other groups to network more with the deafblind community and recruit promising advocates to give their perspectives in what technologies are accessible to them. Because our communication needs are more diverse, we need to look at as many viable solutions as possible that could lead to an equal playing field for the deafblind community. Many of us with low vision can rely on large print materials through magnifiers and other peripheral devices available. Yet some of us deafblind have no useable vision and must rely on our sense of touch to see the world around us.

We need to educate the FCC, Microsoft, Google, and other technology companies on what it means to receive complete information through tactile means. Braille devices that we have today will soon become obsolete as technology evolves. Screen reading devices like JAWS are not interoperable with different operating systems and platforms and do not work with both audio and Braille. Professionals in tech support do not always understand how their systems interact with peripherals commonly used by people with disabilities.

I would like to see TDI host a summit on deafblind technology issues with the FCC and major industry players and try to come up with some solutions. We naturally want to know what is going on just like everyone else. There are many gaps in interpersonal and mass communication situations. We need the opportunity to be at the table planning solutions together with people who can make things happen.
Interview with Scott Davert

DeafBlind Services Specialist, Charlotte Regional Center
North Carolina Division of Services for the Deaf and Hard of Hearing

1.) Briefly introduce yourself. Were you born deaf-blind or did this occur in later life? Where did you grow up? Did you have a deaf family or a hearing family? Maybe even a mixed family – some deaf/hard of hearing and others hearing? Where did you go to school for K-12? College/ university? Highest degree you have attained. What job do you have and with whom? If you can comment a bit about your previous employment, this would be good, too.

My name is Scott Davert. I grew up in a family comprised of hearing and sighted members in Michigan. I was born blind, and began losing my hearing as a young adult. This created many barriers I had to overcome because I learned how to do everything with sound. If I dropped something, for example, I could hear exactly where it dropped and could easily retrieve it. I also had enough hearing to cross streets without any vision and could listen to my environment to hear where things were based on the sound reaching my ears as air bounced off of objects. This is known as echolocation. As I aged, my hearing began to decrease and I had to find ways to adapt to my always changing environment. My hearing has continued to decrease slowly over the years, and I now struggle to keep up with voice conversations even with the strongest hearing aids on the market.

I attended a public school for k-12, and had special classes where I learned to read and write braille. Other than those classes, I was always in with my sighted and hearing counterparts.

I moved on to get degrees in sociology and psychology from Saginaw Valley State University and also a minor in Creative Writing. I have a Masters degree from Western Michigan University in Vision Rehabilitation Therapy.

After graduating with my Master’s degree in 2010, I moved to Long Island and became a Senior Instructor in the Communications Learning Center at the Helen Keller National Center. After 6 months, I moved to the Adaptive Technology Center, but still taught students braille depending on the need. After working in this position for 3 years, I moved to Denver Colorado where I became a Regional Representative for HKNC. In 2015, I moved back to New York to become the program Coordinator of the new York Deaf-Blind Equipment Distribution Program. I worked in this position until the end of 2016, and then moved to my current job as a DeafBlind Services Specialist for the Division of Services for the Deaf and hard of Hearing in Charlotte North Carolina. I work with what some agencies call consumers, and what DSDHH calls customers, in the 50 counties that cover the western half of the state.

Technology and Braille have always been 2 things I have been very passionate about, as I feel they give many people who are DeafBlind back their independence. Technology has helped me be an independent person in many ways, and I have always felt that it can help others who are DeafBlind as well to some degree. We are all different in what we are comfortable with, and what we wish to accomplish.

As I went through graduate school, I also served as a member at large for SHI-M=DB, a consumer organization which advocates to further increase the rights of the deaf-blind in the state of Michigan. I later became their Webmaster and eventually served as the Vice President for this organization. I have also served as a member of the Board of Directors for the American Association of the Deaf-Blind, for 2 years from 2010 until 2012.

As written above, I believe that technology can greatly increase the quality of life many individuals who are DeafBlind can have. Keeping up with the latest trends and devices can be very overwhelming. As technology is both a hobby and benefits me along with many I serve, I also publish content reviewing some of the latest Braille devices. One of the publications I write for is the Access World magazine published by the American Foundation for the Blind. I also am on the staff of a website called applevis.com, which is a web based community promoting and advocating for equal access to apps, services, and devices on various Apple platforms. While it focuses on the blind, I have published articles which also impact the DeafBlind such as reviews of Braille displays, an article discussing Sprint IP-Relay, and the latest accessibility features on iOS Devices. Finally, to help advocate for people with disabilities, I’m an active member of the Disability Advisory Committee for the FCC, which was highlighted in the previous issue of TDI World.

2.) What have you and others at Charlotte Regional Center (and maybe other Regional Centers in NC) done for the deaf-blind community? What programs and services does DSDHH offer to its deaf blind customers? Which organizations are you heavily involved with?

DAVERT Continued on page 35
involved with, and why you enjoy doing things with these groups?

We are all hard at work to make communication for the deaf, hard of hearing, and deaf-blind more accessible. Sometimes it involves training a customer on a piece of technology, sometimes it means presenting to a group of emergency managers on the deaf, hard of hearing, and deaf-blind communities, sometimes it means getting a group of people who are deaf-blind together to socialize. Other times, it could be any number of different things. DSDHH administers the ICanConnect program in North Carolina, provides self-advocacy training to the people we serve, helps deaf-blind students advocate for their rights and educates their family on services available, and much more. I can only speak for myself when I say that what drives us to continue doing what we do is the satisfaction we get from our customers being able to achieve something they desired but couldn’t without our support. It could be anything from training them on how to place a phone call with a change in disability to assisting a customer to obtain a hearing aid through our Equipment Distribution Service. We also provide free weather radios that are available to anyone with a hearing impairment who is a North Carolina resident. Safety is a right, not a privilege. Speaking of safety, some of the agencies we work with are involved in emergency communications or are first responders. Overall, they are always receptive to new information and have excellent questions. Another group I enjoy working with are the people who are on the DAC. All of the members have unique backgrounds and we all come together to try an address issues related to the accessibility of telecommunications for people with disabilities. All that said, it’s difficult to list a specific group of people that I enjoy working with the most since many of the agencies and people I work with are all attempting to be a part of something bigger... The improved quality of life for the people we serve.

3.) What is your vision for the future of the deaf-blind community? Are you optimistic or frustrated, or both with what is generally happening in America?

There will always be victories and there will always be losses. In other words, I think there will always be things that are positive and things where we can improve. Not just as a community, but as society. I’ll spare you political talk, since that’s not what I think you were after, but I will tell you some great and some frustrating things I’ve experienced in my work over the past few of years. The below examples are used to help illustrate my points and aren’t an actual endorsement of any of the products.

On the positive side, though Braille technology is very expensive, we have many organizations working together to attempt to achieve a more cost effective option for blind and deaf-blind people around the world. Ten different organizations from seven different countries worked together as a group known as the Transforming Braille Group to produce the Orbit Reader 20. This Braille display costs $449 and is 20 cells. It works with many different types of mainstream technology and is a fraction of the cost of most other displays on the market. Is it perfect? Not exactly. The point is that all of these groups from around the world have come together to help solve a problem that exists for many blind and deaf-blind people. The product is out there in limited quantities, and I’ve even written a review of it myself. http://www.afb.org/afbpress/pubnew.asp?DocID=aw190103

We also have other companies working on other Braille issues such as the Canute multi-line tablet (http://www.bristolbraille.co.uk/), which is working to address the issue Braille readers have with only traditionally being able to read one line of text at a time. This means no access to formatting information on a page. This tablet could change all of that. There is also the challenge of getting notifications of certain events for people who are deaf-blind. There are options on the market for having a video camera that may eventually also be able to do facial recognition. Ring is one company who have taken this technology and combined it with a wifi enabled doorbell. This allows the user to get a notification on their smartphone or other device that someone is at the door. That person can also see who is at their door through a video camera. 

Couple this with the facial recognition technology, and it’s not out of the realm of possibilities to soon be receiving notifications on your smart devices such as: “Joe is at your door”. If you are deaf-blind and rely on Braille access, unless you sleep with a Braille display, you do not have instant access to this information.... Or do you? Another company called Dot Incorp. has designed a 4 cell Braille smart watch which can deliver any notifications from your Bluetooth connected mobile device. While still in its infancy, the Dot watch (http://www.dotincorp.com/) is an intriguing technology with the potential to unlock a lot more possibilities for people who are deaf-blind. Also of positive note are the various agencies and companies who have dedicated time and resources to making their products or services accessible to all. When you have off the shelf products that anyone can buy such as Amazon Kindle Fires, iOS devices, and even Windows devices to some extent, it means people are starting to be open to working to make their products accessible to all.

On the challenging side, education and advocacy are still needed. Continuing with the technology aspect, there
are many websites which are not fully accessible to individuals who are deaf, blind, or deaf-blind. Some websites with accessibility problems can prevent access to online shopping, the playing of games, or many other leisure activities. On a much more serious level, inaccessible websites can prevent people with disabilities from applying for jobs. Most seriously, inaccessible media and websites can prevent people with disabilities from accessing emergency information such as whether they need to evacuate their home, take cover from a tornado, etc. It has been my experience that a lot of this inaccessibility of information comes from lack of education on the part of developers/content producers on even the idea that some of this technology exists. If the infrastructure of a content delivery mechanism is not built from the ground up to take into account universal design, it’s often a bigger challenge to add it on later. Sometimes, though, all it takes is people articulating why something doesn’t work to encourage a developer to fix that issue. Other people who are developers may not find it worth their time to make their applications/websites accessible.

Since there are no laws specifically addressing web accessibility, there is often no recourse for people who cannot access a service or business due to lack of accessibility. The best we can do is educate people on our needs and spread awareness of the technology and how it interacts with the world around us. Through my daily work with DSDHH, my service on the DAC, and many other projects, I hope I am doing my part. I’m just one person though, and it takes the effort of many to make our world a more inclusive place. We need more people involved in voicing their needs in a constructive way. Sometimes, lack of action can lead to an issue never being solved.

The other challenge for the deaf-blind community as I see it is fragmentation. People who are categorically deaf-blind come from a wide range of backgrounds and disabilities. I’ve found that the hard of hearing and deaf cultures often clash when trying to work together. I think this comes partially back to awareness. I’ve heard culturally deaf people express the sentiment that those who are hard of hearing should socialize with those who can speak and that they should look to those people to help them advocate. Guess what the hard of hearing population sometimes says? That culturally deaf deaf-blind people should just keep socializing with their deaf counterparts and look to them for support with advocacy. ALL deaf-blind people experience some form of isolation. Either a loss of hearing can cut someone off from communicating with those around them, or a vision loss can inhibit a culturally deaf deaf-blind person from seeing people around them signing effectively. My point here is that, though the situations can be entirely different, we all have access needs and we all wish to be understood by those around us.

All of those negative things aside, I don’t think anyone can deny the progress we have made as a deaf-blind population overall in the past couple of decades. Society as a whole will always discriminate to some degree against one part of the population or another, but companies, agencies, and individuals are more aware of disabilities than they ever have been. The door is slowly opening, but we have a long way to go. The time to start advocating for yourself is now. If you aren’t sure how or where to begin, look to others around you who you feel are strong or who are role models. Learn from their example and begin taking charge of your life if you already haven’t done so. We’re all different, but no more or less important than anyone else.
Captioning, Subtitles, and User Interfaces

Comments to ESA Petition for Extension of Video Game Software Class Waiver of Commission’s Rules for Access to Advanced Communications Services and Equipment by People with Disabilities • CG Docket No. 10-213

(December 1) TDI, NAD, HLAA, ALDA, CPADO, AFB, ACB, CCASDHH, NASADHH, DHHCAN, and DHH-RERC filed comments on the October 27, 2017 Petition for Extension of Waiver of the Entertainment Software Association, in response to the Commission’s November 1, 2017 Request for Comments. We continue to appreciate the efforts of ESA and its members to dialogue and work with the deaf and hard of hearing and blind and visually impaired communities and gather feedback on their products and services from gamers who are deaf, hard of hearing, blind, visually impaired, or DeafBlind, including the additional steps taken throughout 2017 detailed in ESA’s mid-year progress report and the Petition. We were concerned that the Petition’s description of progress over the preceding waiver period ... did not systematically survey the extent to which progress has been made across at least a representative sample of games. And we were concerned about ESA’s allusion to future reliance on the CVAA’s achievability framework, which raises the prospect that ACS components in games released after the expiry of the waiver may remain inaccessible. However, we noted with approval ESA’s commitment that its request is the “final extension” it seeks with of the ongoing waiver. We take in good faith ESA’s commitment that its members will leverage the progress in developing meaningful accessibility solutions that has accrued over the lengthy preceding waiver period and shift into a mode of accessibility by design in new products, while continuing to meaningfully engage with consumers with disabilities to ensure that its products serve their needs. ... We urged the Commission to make clear (a) that no further extensions will be granted; and (b) that claims that making ACS components of future video games accessible is unachievable will be scrutinized skeptically against the backdrop of the multi-year waiver period. And we strongly encouraged ESA and its members to continue their collaborative work with consumers with disabilities to ensure that games are designed with accessibility in mind and that problems can be rooted out before products hit the market rather than after the fact via enforcement action. 

cf: https://ecfsapi.fcc.gov/file/1201117027532/2017.12.01%20

Telecommunications Relay Services

Ex Parte to Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities • CG Docket No. 03-123

(December 20) TDI, NAD, CCASDHH, CPADO, DSA, and HLAA submitted an ex parte in support of the Petition for Rulemaking filed by IDT Telecom, Inc. on November 25, 2015. The Consumer Groups asked the Commission to issue a Notice of Proposed Rulemaking, or include the Petition in a broader rulemaking on Telecommunications Relay Service issues, on the appropriate base of contribution to the TRS Fund. The Petition, among other positions, asked the Commission to open a rulemaking with the explicit purpose of considering the addition of intrastate revenue to the TRS contribution base. Currently, interstate and international revenue funds certain TRS programs. Yet the TRS system also provides support for intrastate calls using some TRS supported services, such as IP Relay. Expanding the overall TRS contribution base would more closely align the use of the
services with the revenue that supports such use. Expanding the contribution base to include intrastate revenue likely would result in a significant reduction of the rate charged on assessable revenue. This continued rate growth is a matter of demand increasing faster than the supply. Simply put, demand for use of TRS-supported services by deaf and hard of hearing individuals has continued to rise, as awareness and availability of the services improves among eligible consumers. Meanwhile, the amount of assessable telecommunications revenue has remained flat or even declined due to changes in the industry. Broadening the TRS Fund base will assist in reversing these trends. The Consumer Groups believe that state commissions should continue to have a role in regulating certain legacy TRS services that are intrastate in jurisdiction. Similarly, the Commission should ensure that state TRS funds should continue to be adequately supported by intrastate revenue. Nonetheless, the Consumer Groups agree with IDT that the Commission has the statutory authority to broaden the contribution base to include intrastate telecommunications revenue.

rather, the Commission should refer the matter to the iTRS Advisory Council to work with the TRS Fund Administrator on potential means to validate VRS calls from public videophones. While the FCC should take reasonable steps to prevent fraud or abuse, as explained below, the proposed log-in requirement for public videophones will be burdensome to consumers and the benefits do not outweigh those burdens. Furthermore, traffic from public videophones comprises an extremely small portion of all VRS calls. As a result, the potential for fraud or abuse of public videophone usage should be proportionately small if not de minimis. Given this, the need for a log-in requirement for public videophones at this time does not outweigh burden to consumers.

Emergency Communication

■ Reply Comments to 911 Access, Routing, and Location in Enterprise Communications System • PS Docket No. 17-239

(December 15) TDI, NAD, HLAA, ALDA, CPADO, CCASDHHD, DHHCAN, and DHH-RERC) filed reply comments on the Commission’s September 26, 2017 Notice of Inquiry (NOI) in the 911 Access, Routing, and Location in Enterprise Communications System docket. The NOI specifically sought comment on the accessibility dimensions of 911 in the context of enterprise communications systems (ECS). Consumer Groups seek to promote equal access for the 48 million Americans who are deaf, hard of hearing, late-deafened, or DeafBlind to life-saving access to the 911 system. As an advocate for technology and telecommunications policy that advances the public interest, DHH-RERC strongly supports the Consumer Groups’ goal of ensuring that the 911 system is fully accessible to all Americans—including those with disabilities. The record developed in response to the NOI strongly underscores the importance of Commission action to ensure that ECS support accessible 911 for people who are deaf or hard of hearing. For example, the California Public Utilities Commission noted that “TTY and [captioned telephone] users are a statistically vulnerable population, who might be calling from a residence or enterprise environment such as assisted living, hospitals or business.” The record also indicates that making ECS accessible through the provision of Real-Time Text (RTT) and Video Relay Service (VRS) is achievable in the near future. For example, NENA notes that “soon, [911 Public Safety Answering Points (PSAPs)] will also handle both interim- and next-generation-native Real-Time Text.” Moreover, PSAPs that are not yet equipped to handle RTT calls are in a position to receive RTT communications as TTY calls through the use of gateways, as outlined in the FCC Emergency Access Advisory Committee’s Report on the TTY transition and the corresponding NENA STA-010 specifications for NG 911. However, it remains unclear the extent to which ECS systems provide equal access to 911 facilities, especially when it comes to the provision of location information. The Colorado Public Utilities Commission notes that some ECS systems “do not take advantage of existing technology to provide location information” and as a result “put[ ] deaf, deaf-blind, hard of hearing, and speech impaired callers at a disadvantage when using ECS to call 9-1-1, a violation of the spirit of the [Americans with Disabilities Act].” Similarly, Comtech notes that “[b]ecause of RTT’s use by the deaf and hearing/speech impaired communities, it is crucial that ECS systems provide a civic form of location for emergency calls made indoors.” It also remains unclear the extent to which PSAPs
remain capable of receiving RTT or VRS calls from ECS systems. This is not primarily a PSAP issue, but an issue of ECS interconnecting RTT capabilities to ESINet and TTYs for legacy PSAPs. ECS and their VoIP providers need to acquire RTT capabilities first. Likewise, for VRS calls, the most important step is to connect ECS to VRS providers in the short term, followed by direct video to NG 911 in the long term. The Telecommunications Industry Association (TIA) emphasizes a willingness to engage with the “roundtable discussion with appropriate stakeholders” recommended by the FCC’s Disability Advisory Committee and an interest in “further discussion regarding ECS accessibility requirements.” We agree and urge the Commission to take further steps to facilitate that dialogue and stand ready to collaborate with the Commission and our colleagues from industry and the public safety community to ensure equal access to the 911 system.


Hearing Aid-Compatible Mobile Handsets

- Ex Parte to Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets • WT Docket No. 15-285

(January 11) Competitive Carriers Association (CCA), CTIA, HLAA, NAD, TDI, and Telecommunications Industry Association (TIA), representing people who use hearing aid devices and the wireless industry, submitted an ex parte letter to update the FCC on progress made in calendar year 2017 toward creating a stakeholder task force convened to recommend to the Commission whether 100 percent hearing aid compatibility (HAC) is achievable for wireless handsets, pursuant to the Joint Consensus Proposal adopted in the Commission’s 2016 Report and Order. Such task force would include “representatives of consumers who use hearing aid devices, research and technical advisors, wireless industry policy and technical representatives, and hearing aid manufacturers” and would consider, among other things, whether 100 percent compatibility is achievable; whether deployment benchmarks could rely in part or in whole on alternative hearing aid compatibility technologies; the definition of HAC for purposes of compliance with the Commission’s rules; whether 100 percent compliance could be satisfied through innovative approaches; and how to ensure the rules effectively aid consumers and reflect the unique needs of both nationwide and non-nationwide wireless service providers. Over the course of the last year, the stakeholders have undertaken various efforts toward the formation of the consensus task force. Among other steps, industry representatives formed an ad hoc working group to discuss various issues relating to the stakeholder process, including potential participants, potential costs and time commitments, and whether an organizational entity may be needed to oversee the logistics of the group. Industry representatives, including the signatory associations, the ad hoc group, and broader participants, discussed these issues during at least a dozen substantive meetings and casual conversations throughout the year. Industry also provided consumer groups with three brief, informal, verbal updates and one face-to-face meeting over the course of the year regarding these discussions.


Other Issues

- Comments to Nationwide Number Portability & Numbering Policies for Modern Communications • WC Dockets No. 17-244 and 13-97

(December 27) TDI, NAD, CPADO, ALDA, DSA, and DHH-RERC submitted comments in response to the Notice of Proposed Rulemaking and Notice of Inquiry seeking comment on the implementation of complete nationwide number portability. All consumers, including individuals with disabilities, have come to memorize and distribute their assigned 10-digit telephone numbers to friends, family, colleagues, acquaintances, employers, doctors, and many other contacts. Although VRS and IP Relay Service users can keep their numbers when switching providers today to the extent that local portability is available, VRS and IP Relay Service users face the same difficulties porting their numbers in the event that they move to a geographic area where the provider who “owns” their assigned number does not have a rate center. In the event that hearing consumers, whether using wireless or wireline services, begin to enjoy the ability to port their numbers nationwide, TRS users must be afforded the same rights with respect to number portability. The Commission should seek to provide a transparent process for the nationwide porting of numbers both between relay providers and from TTY/RTT or voice providers to relay providers (and vice versa). This should include not only those requirements that providers must follow between each other to verify and accomplish the port, but also between the winning provider and the VRS database administrator or other applicable relay specific database to update the default provider associated other to verify and accomplish the port, other applicable relay specific database to update the default provider associated with the customer. Establishing common nationwide number portability procedures for VRS and IP Relay Services would give
consumers a clear picture of the amount of time that a service transfer should take and would give relay providers clear guidelines under which to operate when transferring customers. Accordingly, the Commission should develop a timeframe that should apply to the porting process for relay services similar to that imposed on voice services including interconnected VoIP. Relay customers should not be subjected to porting delays that extend beyond the one business day requirement that applies to traditional simple ports or the four business day porting interval for non-simple ports. Consumer Groups would also support voluntary industry practices to reduce this interval even more. The Commission also should not delay implementation of nationwide number portability by VRS and IP Relay Service providers while allowing wireless carriers and others the opportunity to adopt nationwide portability on a shorter implementation timeline. Additionally, just as nationwide portability will enable small and regional wireless carriers to compete more effectively with nationwide wireless carriers that are largely able to port numbers anywhere today due to their presence in rate centers nationwide, nationwide number portability for VRS and IP Relay Service users will promote competition among relay providers. Without the ability to port numbers to a new default VRS provider nationwide, there is a strong disincentive not to switch to a new VRS provider while hearing consumers will be entitled to port their number among any telecommunications service provider in the country. Consumers with disabilities should be able to experience the same benefits to competition that hearing users will experience after a transition to nationwide number portability. This includes the ability to retain their 10-digit telephone number regardless of where their service provider is located. The Commission’s rules currently enable VRS and IP Relay users to register and obtain 10-digit geographic numbers that are routed directly and automatically to the appropriate Public Safety Answering Point (PSAP) and to have their 10-digit number and registered location information forwarded to the appropriate PSAP. With a move toward non-geographic numbers, the Commission must ensure that VRS and IP Relay Service users have the capacity to make emergency calls that will be routed to the most appropriate PSAP, even if the PSAP is not the one associated with the user’s registered location (which can happen with wireless relay calls). Users with disabilities must be able to make emergency calls that are routed to the most appropriate PSAP from whether they are, whether at home, in the office or using a mobile device outside of the home.

Comments to Public Notice by the U.S. Department of Commerce • Census Bureau - American Community Survey and the 2020 Census (February 12) TDI signed on to NAD’s comments to the Census Bureau. NAD expressed concerns regarding the Census Bureau’s refusal to recognize American Sign Language (ASL) as a language completely distinct from the English language. The Bureau has listed ASL as a subset of the English-language category in its questionnaires and as a result has declined to gather data on ASL. NAD urged the Department of Commerce to immediately correct this policy and further encourage ASL video versions of future censuses and surveys as to ensure improved accuracy and reliability of responses.

Comments to Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment • WC Docket No. 17-84 (February 16) TDI, CCASDHH, CPADO, HLAA, NAD, RERC-Gallaudet, RERC-Trace Center, NASRA and TEDPA) filed reply comments with FCC for its proceeding, titled, “Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment.” In our initial comments, we asked the Commission to abstain from removing rules or modifying them in a way that might result in individuals with disabilities being cut off from communications networks without warning. First, we made clear that the Commission should keep the Customer Premises Equipment (“CPE”) notice rules because they are designed to ensure that consumers have the opportunity to update or modify their CPE in advance of network changes. We reiterate that we would not oppose modifying the rules to address the concern that carriers cannot identify all the CPE connected to their networks and the affect that network changes would have on those CPE. Second, we asked that the Commission not forbear from its Section 214(a) discontinuance requirements when a discontinuance would affect the communications platform the carrier provides. Third, we explained how the Commission’s outreach requirements should not be repealed because they provide a flexible framework for carriers to educate consumers about service discontinuances. Fourth, we explained that market competition cannot ensure that all carriers engage in the same or sufficiently similar conduct as what is required by the rules. Fifth, we pointed out that no commenters made reasonable claims that network changes would not affect users of some legacy devices or that there are adequate alternatives readily available for essential CPE, such as TTYs and analog captioned telephones.
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Emergency calls made via internet-based TRS may not function the same as traditional E911 service. For example, you may not be able to dial 911 if there is an internet-service failure or if you lose electrical power, and your 911 call may not be routed correctly if you have not updated your Registered Location. For more information on the process of obtaining 10-digit numbers and the limitations and risks associated with using Sorenson’s VRS to place a 911 call, please visit Sorenson’s website: www.sorenson.com/disclaimer. For information on toll-free numbering, please visit www.svrs.com/tollfree.

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