Disabled employees deserve the correct tools to do their job, says Michael Young, CAPTEC Manager in the Defense Department.

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Technology Adapts to Include the Disabled Federal Worker

Government agencies find effective solutions tailored to disabled employees' needs.

by Erin Brereton 🐦

Erin Brereton has written about technology, business and other topics for more than 50 magazines, newspapers and online publications.

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Technology is now a mainstay of many federal agency roles, from electronically documented attendance, performance review and other records to e-training — which can pose distinct challenges

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for employees with a mobility, visual or other disability.

In response, agencies have established entities, such as the Department of Transportation's Disability Resource Center, to provide reasonable accommodations, including assistive technologies and services, to applicants and employees with disabilities.

The scope of specialized technology that's available has grown over the years, according to Alison Levy, Manager of the Department of Transportation's Disability Resource Center. In some instances, employees may know what items would best position them to complete tasks; in other scenarios, the center may make a recommendation, based on items it has provided.

The DRC might, for example, help a hard-of-hearing employee obtain an Ultratec CapTel captioned telephone, or a speech-to-text solution such as Nuance's Dragon NaturallySpeaking.

"Generally speaking, if a person's limitations fall within a disability – category — say, someone has low vision," Levy says, "there are certain products we've worked with previously. But we're always exploring new options."
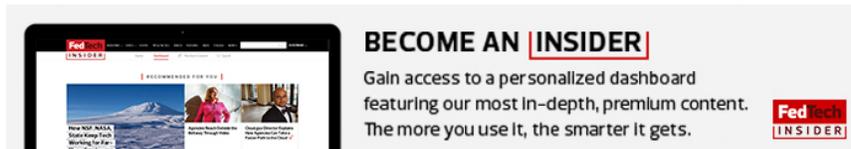
Finding Tech Solutions to He Disabilities

The Department of Defense's Compute Accommodations Program (CAP), whic funded resource for providing assistive technology for people with a disability, works with items already put into practice.

CAP's blanket purchase agreement involves about 650 products, says Michael Young, CAP Technology & Evaluation Center manager and assessment specialist.

These include tools to assist people with cognitive communication disabilities plus items that address dexterity limitations due to carpal tunnel syndrome, tennis elbow or digit or limb loss.
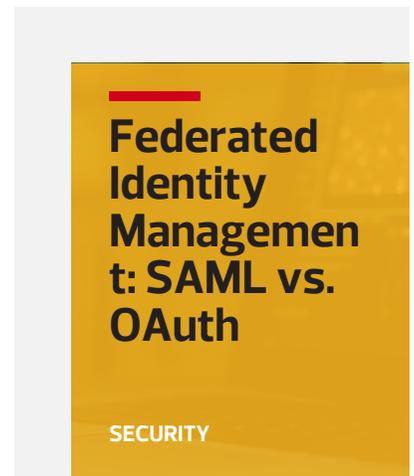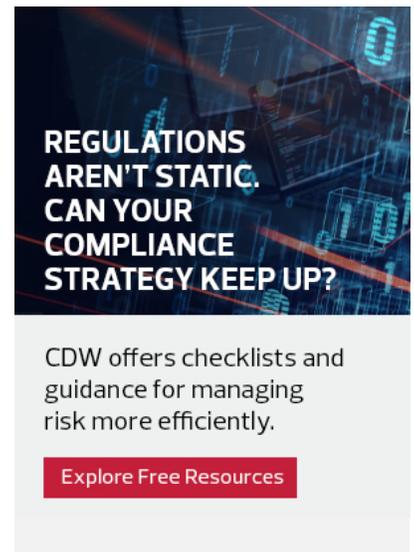
[KeyOvation's Goldtouch Go!2](#) and [V2 Adjustable Comfort](#) keyboards, for example, can be adjusted to support wrists, arms and shoulders.
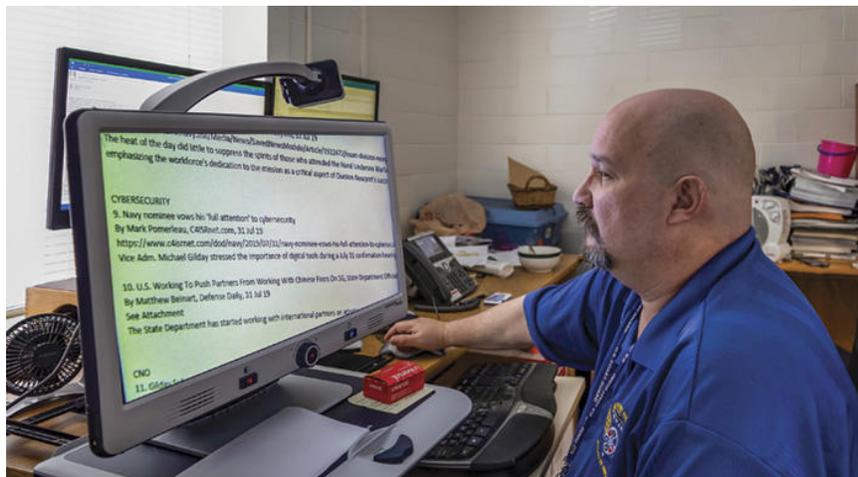
John Tebo, who works at the Naval Undersea Warfare Center, uses a special device to help him read text and do his job. Photography by Nathanael T. Miller/Naval Undersea Warfare Center Division

If someone needs an item that hasn't been acquired in the past, both the DRC and CAP's staff will investigate what options exist to help identify which product would be ideal.

"If the person has reduced vision — maybe someone has cataracts or a detached retina and blurriness — there are software programs for screen reading that will allow you to enlarge text or information on the screen," Young says. "Or, you can have emails read in applications aloud."

DOD agencies and their partners work with a designated disability program manager who can help facilitate the tech acquisition process, according to Young. Other agencies may also be tapped as a resource when CAP is trying to track down a new piece of technology.

"It's very likely not the first time someone in the federal government has asked for it," Young says. "The IT department at agency X may not have seen that item, but the IT departments at agencies C and Y could have vetted it."

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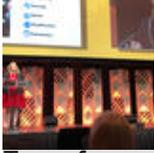
Technologies

In general, new hardware tends to be viewed as less of a security concern, according to Young.

"I would say 95 percent of what we provide are plug-and-play USB items — just like if you have a Dell computer, the keyboard that came with it is what you'd plug into the USB port, and the driver would be recognized," he says. "Nothing really new on the keyboard is going to be installed on the computer, which implies they are pretty safe."

CAP's goal is to try to deliver a blanket list and more bespoke accommodations to the intended recipient within 30 days of when approval and all documentation is received. Security-related testing "would extend the timeline, because vetting is not an immediate, very quick process," says Young.

Considering applications to be compromised until proven otherwise can be a less risky position for agencies to take, according to Chase Cunningham, principal analyst at Forrester.

"Much like other tech items, what's been developed to help people with disabilities is able to be an avenue of exploitation," Cunningham says. "Because the computer that received the software is networked, it quickly becomes a larger issue."

CAP can sometimes speed the fulfillment process up somewhat by identifying an alternative version of the software that's ready for immediate use, Young says.

"If the 2020 version is not yet vetted or allowed on the network, we might be able to find a 2018 version that's allowed," he says. "It's pretty atypical that if a person has an issue causing them difficulty accessing computers, we can't find something that will work."
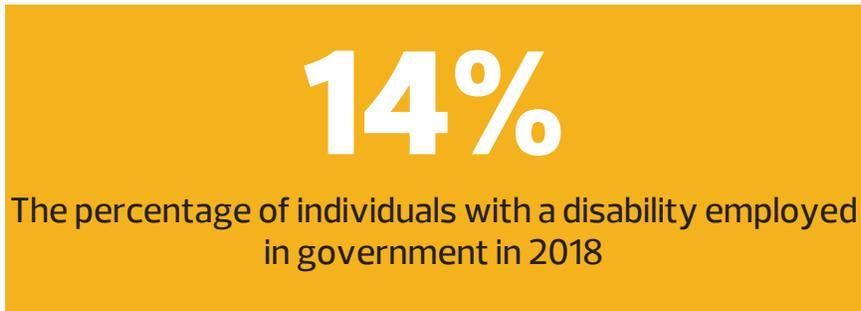
14%

The percentage of individuals with a disability employed in government in 2018

In some instances, when an employee with a mobility disability is traveling, or an assistive hardware or software request is still pending, the DRC might provide a solution that's actually more human than high-tech: personal assistive services (PAS), a program the center began offering in 2004 to support DOT employees with disabilities in the workplace and while on government travel.

"The DRC sometimes accelerates processes to meet short timelines but may rely on human supports to fill the needs while technology is being procured," Levy says. "There are times when a document, website or e-learning opportunity doesn't work with an assistive technology. In those instances, we have PAS to fill the technology gap."

Such assistance can be vital in instances where, for example, a standard security update doesn't gel with software that's been implemented for employees with disabilities.

"Those patches get issued to the desktop so quickly, you don't always have time to test them using assistive technology," Levy says.

"If everybody is required to use a PIV card to log in to their computer, and a security patch has been deployed that changes the configuration of the computer, a blind person's screen reader might stop working — they can't log in if they don't know what the screen looks like."

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Feds Need to Meet Individual Requests for Tech

Even with all the assistive tech products on the market today, there isn't a one-stop shop for agencies, Young says.

"Assistive technology software was developed primarily for the U.S. in an educational setting," he says. "Its use in the workplace has grown exponentially over the past couple of decades, but there aren't the behemoths like Microsoft. It's smaller

organizations that start in mom-and-pop situations."

> " The average cost of accommodations CAP has provided has ranged from $370 to $420. For federal agencies, it likely isn't a budget breaker."

Michael Young, CAPTEC Manager and Assessment Specialist, Defense Department

As a result, according to Young, matching employees with the perfect piece of hardware or software that will suit their specific needs can involve a bit of detective work. "I like to say the needs assessment process is like playing 20 Questions," he says.

"If you have visual field loss, do you have eye floaters? Does your vision come and go? What do you primarily look at? Email and documents, or spreadsheets with numbers?

"Once we have the information, we can say, 'Here's product A, B and C,' to help employees understand how they compare and contrast."

Although some common misconceptions exist about assistive technology's costs, Young says, agencies might be surprised to learn the actual amount that's typically spent to equip employees.

"The average cost of accommodations CAP has provided has ranged from $370 to $420," he says. "For federal agencies, it likely isn't a budget breaker."

The technology can be a worthwhile investment. By facilitating job candidates with disabilities' inclusion in agencies' recruiting efforts — and ensuring employees who develop a disability in the future will be able to continue working — assistive technology plays an important role in federal agencies' overall success, according to Levy.

"It's helping us retain people with disabilities," she says. "Anything can happen on any given day that changes how people work;

technology is frequently the equalizer.

"Technology impacts the way people look for a job, even onboarding and professional development opportunities. Access has to be considered at every stage of the employment life cycle."

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