

Welcome

This webinar is part of a series showcasing "Best Practices in Federal Section 508 Implementation". Other presentations can be viewed at:

- www.adaconferences.org/CIO/archives and
- www.fedlink.org/allqual/resource-shared-webinars.cfm

- A best practice is a policy, process, procedure or technique proven effective over time and repeatable by multiple agencies.
- A best practice is generalized so that diverse agencies may use it in their own organizations but specific enough to provide useful guidance and instruction.
- The CIO Council's Accessibility Community of Practice has published a library of 508 Best Practices at www.Section508.gov.

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Section 508 Best Practices Webinars

Webinars are bi-monthly:

- January, March, May, July, September, November

Next Webinar: September 29, 2020

- Topic: Managing for Accessibility Throughout the Acquisition Lifecycle
- Time: 1:00 to 2:30 p.m. Eastern

This webinar series is a collaborative program between the Accessibility Community of Practice of the CIO Council and The U.S. Access Board.

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This webinar is brought to you by



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July 21, 2020

Accessible Virtual Meetings

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Communication Rules

- **Mute** your microphone when not speaking
- **Leave your video on** (since we have so few presenters)
- **Identify yourself** by name before you begin to speak 
- **Describe images and read text** for users without visual access
- Presenters will **pause at the end of each slide** for additional comments

And now..

Communications Check



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Introduction

- **Gerard Williams**
 - Section 504 Compliance Officer, Federal Communications Commission
 - Nationally Certified American Sign Language Interpreter (NIC Advanced)
- **Brandon Pace**
 - HQ Section 508 Program Manager, U.S. Department of Homeland Security
 - President of Deaf & Hard-of-Hearing DHS employee resource group
 - Certified Professional in Accessibility Core Competencies



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Agenda

- Accommodations vs. Accessibility
- Challenges and Opportunities
- Best Practices
- Equipment and Technology Recommendations
- Virtual Conferencing Platforms Overview
 - Zoom
 - Cisco WebEx
 - Google Meet
 - Adobe Connect
 - Microsoft Teams
 - Live Streaming (e.g. YouTube, Facebook, Twitter)
- So how do I pick a platform?
- Q&A Session



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Quote to share

“

For most people, technology makes things *easier*.

For people with disabilities, however, technology makes things *possible*.

Mary Pat Radabaugh
 Director of IBM's National Support Center for People with Disabilities
 1998

”



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Common In-Person Meeting Accommodations

- Interpreters (American Sign Language (ASL), Tactile ASL, or Protactile)
- Support Service Provider, sighted guide, personal assistant
- Real-time captioning (CART)
- Automatic Speech Recognition* (AKA: automated/live captions)
- Assistive Listening Devices
- Documents in alternate formats
 - Braille or Large print
 - Audio format (text-to-speech)
 - Electronic methods (email or CD)
- Note taking
- Extended breaks
- Seating locations



*Newer technology, not widely adopted as an in-person accommodation.



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Reminder...

Equality

Accommodation

Accessibility

Accommodation is not the same as accessibility.

- Accommodations are for **individuals** and are **reactive**.
- Accessibility is for **populations** and is **proactive**.
- Accessibility should make content **available to all**, in equally effective ways, at the **same time**.
- Accessibility is the goal, accommodations are just tools to reach it.

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Virtual Meetings: Challenges

- Platform limitations (Technical)
- Environmental limitations (Security, budgetary)
- Licensing limitations
 - Some features not uniformly available (e.g. higher-tier licenses).
- Diverse access methods/user interface (UI)
 - Inconsistent user experience
- Limited ability to provide technical support
 - Screen share does not share screen share tools
- Turn taking awkwardness
 - Lack of access to conversational cues
- Conflicting accommodations
 - Limited screen space and bandwidth
- Lack of experience and/or training

	Low	Demands	High
High		+	
Low		-	

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Virtual Meetings: Opportunities

- Interface customization
- User control of Assistive Technology
- Expanded pool of participants
 - Geographic, disability, time
- Productivity
- Richer remote interactions (as opposed to “conference call”)
- ...?

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Virtual Meetings: Universal Meeting Design

- Establish a single **Point of Contact**
- Ask for **help**
- Do a **technology test** in advance
- Broadcast the **Communication Rules**
 - Sample at the beginning of this presentation
- Embrace good meeting **management techniques**

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Meeting Management Techniques

- Agenda:** Distribute a detailed agenda prior to your meeting*
- Attendee List:** Make available a list of confirmed attendees
- Moderator:** Assign one participant to serve as meeting moderator
- Name Announcements:** Remind participants to identify themselves before they begin to speak
- Manage turn-taking:** Establish a clear procedure (or utilize a digital tool) to manage turn taking
- Document sharing:** Distribute any relevant documents well in advance of the meeting*

*Any/all document distribution should consider accessibility of those documents (e.g. word format, PDF, plaintext, braille, videos to be captioned & audio described)

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Meeting Management Techniques - continued

- Communication style:** Describe the content of the graphics, speak at a moderate rate and stay on topic for ease of communication
- Check In:** At the beginning of your meeting take a moment to ask whether all attendees have what they need for effective communication.
- Solicit Feedback:** Provide a contact for and specifically solicit feedback on accessibility of the meeting.
- Screen share sparingly:** Screen/content is not accessible to screen readers users, and can take screen space away from video that may be needed. Use with caution, and consider toggling shared content on and off only when needed.

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Equipment and Tech Recommendations

Fine tune your audio

- Use a headset whenever possible
- Split your audio between input and output; input via device's built-in microphone, output to headphones or other isolated audio device
- Only use **one** audio connection method (phone or computer, not both)

Fine tune your video

- Frame your shot
- Consider an external webcam
- Disable autofocus if possible
- Consider turning off your video when it is not needed

Provide multiple connection options

- Maintain flexibility for your attendees by allowing for as many different connections as possible (e.g. IP audio, phone audio, audio only, video only)

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Equipment and Tech Recommendations - ASR

- Different ASR performance on captioning
- Example between 2 different platforms:
 - Google Meetup (using Google Cloud Speech to Text AI)
 - Microsoft Teams (using Microsoft Azure Speech AI)
- Edgar Allen Poe's poem "The Raven"

*Once upon a midnight dreary, while I pondered, weak and weary,
Over many a quaint and curious volume of forgotten lore—
While I nodded, nearly napping, suddenly there came a tapping,
As of some one gently rapping, rapping at my chamber door.
"Tis some visitor," I muttered, "tapping at my chamber door—
Only this and nothing more."*

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ASR Comparison

<p>Once upon a midnight dreary, while I pondered, weak and weary, Over many a quaint and curious volume of forgotten lore— While I nodded, nearly napping, suddenly there came a tapping, As of some one gently rapping, rapping at my chamber door. "Tis some visitor," I muttered, "tapping at my chamber door—Only this and nothing more."</p>	<p>Once Upon a midnight dreary, While I pondered weak and weary. Over many acquaint, incurious volume of forgotten lore. While I nodded, nearly napping, suddenly there came a tapping. As of someone gently wrapping wrapping up my chambered or just some visitor I muttered tapping at my chain, Would or only this and nothing more.</p>	 
<p>Once Upon a Midnight dreary while I pondered weak and weary over many a quaint and curious volume of Forgotten lore while I nodded nearly napping suddenly there came a tapping as of someone gently rapping rapping at my chamber door tis some visitor. I muttered tapping at my chamber door only this and nothing more.</p>		

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Platforms: Zoom




Pros	Cons
<ul style="list-style-type: none"> Highly accessible via screen reader Simple intuitive User Interface (UI) Side by side mode/dual monitor support High quality video/audio with low stutter rate Non-video participants can be hidden Built-in support for captioning (via participant or vendor) Supports up to 100 video participants (350 total) 	<ul style="list-style-type: none"> Integrated meeting management tools lack sophistication Captioning display lacks customization, sophistication, consistency. Security concerns continue to be prevalent, especially amongst government entities No built-in live ASR

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Platforms: Zoom

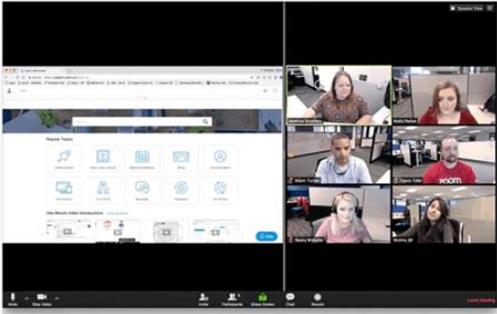


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Platforms: ZoomSli



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Platforms: Zoom (Bad example of captioning)

zoom

unmuted, real-time using human CART stenographer

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Platforms: Zoom (Good example of captioning)

zoom

probably 1999. And even if there had been technology available at that point, which there was not

Unmute Start Video Security Participants Chat Share Screen Record More End

*unedited, real-time using Google Cloud Speech AI

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Platforms: Cisco WebEx

Pros	Cons
<ul style="list-style-type: none"> • Easy to procure; security and enterprise ready • Capability to create a separate module for captioning (Multimedia viewer) • Centralized feature management (administrators) 	<ul style="list-style-type: none"> • Not usable for screen reader users. • Complex user interface requires training to navigate • Unintuitive video “pinning” functionality • Inflexible video interface • Centralized feature management (administrators)

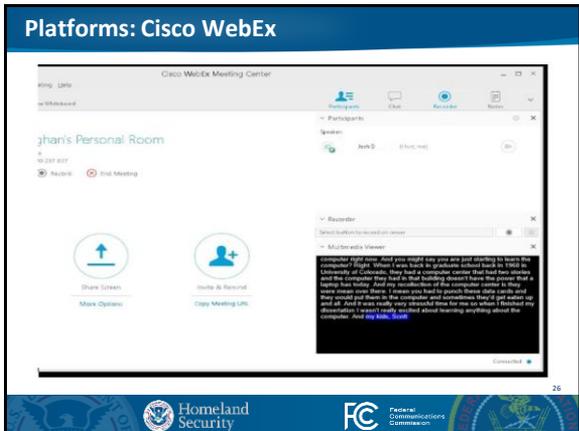
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Platforms: Google Meet

Pros	Cons
<ul style="list-style-type: none"> FedRAMP approved for some agencies Easy to use and intuitive Automated captioning has high accuracy and names speakers (isolated audio channels) Recently added grid layout for video Screen reader and keyboard accessible Audio via phone connection Browser based- no download required 	<ul style="list-style-type: none"> Not widely available to government agencies Supports up to 25 video participants

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Platforms: Google Meet

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Platforms: Adobe Connect

Pros	Cons
<ul style="list-style-type: none"> Majority of federal agencies use it Easy to procure; security and enterprise ready Grid layout for video feed Maximum user interface flexibility; can add a dedicated pod for captioning HTML client and desktop application available 	<ul style="list-style-type: none"> Bandwidth intensive, deprioritize video Complex user interface Not usable for screen reader users No video pinning functionality Requires additional licenses for add-ons such as conference lines

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Platforms: Adobe Connect

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Platforms: Microsoft Teams

T Microsoft Teams

Pros	Cons
<ul style="list-style-type: none"> • Easy to procure; security and enterprise ready • Available to almost all government agencies with Office 365 • Built-in across Office 365 applications for real-time collaboration • Embedded invite for one click meetings via Outlook 	<ul style="list-style-type: none"> • "All-in-one" platform with numerous features that may confuse users • Supports up to 9 video participants • Accessibility issues (e.g. guests unable to pin, unreliable captioning, screen reader access) • Not user-friendly & not intuitive • Captioning only feasible using their Azure AI; no other way to feed captions from CART provider • License dilemma to obtain alternative methods for accommodations

The bottom of the slide features logos for Homeland Security and the Federal Communications Commission.

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Platforms: Live Streaming

Pros	Cons
<ul style="list-style-type: none"> Less bandwidth More control of broadcasting various content and video feeds to audience, especially picture-in-picture ASL interpreter and burn-in captioning Ease of access to virtually everybody who has a computer or mobile device 	<ul style="list-style-type: none"> Requires many moving parts along with technical-intensive knowledge to implement solutions, especially with accessibility Burn-in or embedded captions on streams are not accessible to screen reader or refreshable braille display users Streaming services can be over reliant on ASR generated captioning Does not allow for a great degree of user customization

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Platforms: Live Streaming (Bad example)s



STARTED.



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Platforms: Live Streaming (Good example)



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Platforms: Live Streaming (Burn-on Captions)



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Platforms: Live Streaming (Size & Transition)




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So how do I pick a platform?

None of the virtual meeting platforms are perfect.

Sorry

- Check with your agency/organization to identify which platforms you already have access to
- Engage people with disabilities to test and evaluate those platforms with you
- Implement meeting management strategies to compensate for weaknesses in your platform
- Utilize other services as possible to compensate for weaknesses in your platform (e.g. separate captioning streaming website, hand raising tool)

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Questions from the Audience?



Questions should be submitted via the **Q&A Option**.

DO NOT submit questions in the Chat area as they will not be responded to.

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