

**Title:** Overview on Accessibility of Video Conferencing Apps and Services

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**Purpose and background:** The purpose of this document is for United Nations staff and partners to make their video conferences as inclusive as possible for all persons with disabilities. The Stakeholder Group of Persons with Disabilities gathered the following information from representative organizations of persons with disabilities, in particular from the International Disability Alliance and its members, and from additional research. This list is by no means exhaustive, but rather attempts to provide an accessibility overview. This document is a living document and will be periodically updated as relevant.

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**I. General points**

* Online platforms are not fully accessible for blind *facilitators,* although can be for blind participants.
* In general, desktop versions are less accessible than using mobile versions for blind users.
* For most online platforms, captioning needs to be ordered separately for hard of hearing participants. This creates a complex process with two separate systems. This process is awkward and creates a disadvantage for the participant.
* Access to online platforms poses real challenges for persons with deafblindness due to their dual sensory impairment. A professional interpreter-guide can be the key to access online platforms for many persons with deafblindness, although there are a variety of techniques and communication methods.
* It is important to provide proper training on the use of online platforms to the person with deafblindness as well as their interpreter-guide/assistant.
* Consider the location and internet connectivity of participants and the technology a participant may be able to access. Some platforms need more recent models of phones/tablets/laptops and/or more internet bandwidth to run or be used effectively.

**General recommendations**

* Review online instructions offered by the platform for video layout options and any specific settings for interpreters and/or speech-to-text professionals.
* Contact the platform’s technical support specialists or knowledge base.
* Work with the IT department on integrations or other solutions.
* When further research is undertaken to develop an inclusive online system, the aforementioned points and additional points below need to be taken into consideration in consultation with representative organizations of persons with disabilities.
* Consider the support people may need if a person is unfamiliar with using the platform. For example, people may need extra support to understand how to create an account, download the platform, connect to the meeting, understand the controls and so forth. An easy-to-understand instruction sheet or video may be useful or an offer of a call with participants to talk through the process.

**Table:** A snapshot of accessibility features of the main video conferencing platforms

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Platforms** | **Signing deaf participants visible** | **Sign language interpreter visible** | **Captions can be added** | **Screen reader compatibility** | **Good for large meetings** | **Good for small meetings** | **Additional barriers** |
| **GoToMeeting** |  | ✓ | ✓ | ✓ | ✓ | ✓ | Keyboard shortcuts only work in Windows |
| **Zoom** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Requires a good internet connection |
| **Skype** | ✓ | ✓ | ✓ | ✓ |  | ✓ | Video quality is inconsistent  |
| **Skype for Business** | ✓ | ✓ | ✓ | ✓ |  | ✓ | Not accessible for blind **facilitators** |
| **Microsoft Teams** | ✓ | ✓ | ✓ | ✓ |  | ✓ | Challenging when signed and spoken languages are used with larger groups |
| **Google Hangouts** | ✓ | ✓ | ✓ | ✓ |  | ✓ | Meeting creators must have a G-Suite  |
| **WhatsApp** | ✓ | ✓ |  | ✓ |  | ✓ | Requires WiFi or 4G connection |

**II. Video Conferencing Apps and Services – advantages and disadvantages**

Below you will find an overview of the advantages and disadvantages in terms of accessibility of the main video conferencing apps and services with relevant links.

**GoToMeeting -** [GoToMeeting accessibility page](https://support.goto.com/meeting/help/what-accessbility-features-are-available-in-gotomeeting)

Advantages

* Accessible for blind participants using screen readers[[1]](#endnote-1).
* It is an accessible platform for signing deaf people if no active participation is required, as long as sign language interpretation is provided.

Disadvantages

* This platform is not accessible for blind facilitators.
* When using a screen reader, the chat box function is distracting as every comment is read out.[[2]](#endnote-2)
* A separate link is needed to stream live captions, which is sent via the chat box.
* Captioning needs to be ordered separately for hard of hearing participants through a third-party service.
* For signing deaf people, there is no possibility to see everyone at the same time to communicate in sign language.
* Keyboard shortcuts (an alternate way to do something that is typically used with a mouse) only work in Windows and not on iOS devices.[[3]](#endnote-3)

**Zoom -** [Zoom accessibility page](https://zoom.us/accessibility) and [Zoom accessibility FAQ](https://zoom.us/accessibility/faq)

Advantages

* Captions can be embedded in the video, although some people may prefer to have a link to stream text to be able to move it around.
* Accessible for signing deaf users as everyone can see each other. The World Federation of the Deaf (WFD) uses this platform for large meetings.
* This is a good option for an interactive meeting that requires output from deaf people using sign language.
* Works well for hard of hearing people if captioning is provided.
* Popular with people who use speech-to-text reporters.
* Works well for blind participants using screen readers, other than the chat box function.
* Keyboard-only navigation enabled.
* Good audio and picture quality.
* Anyone with an invite can join a Zoom call.
* Does not require a mobile or desktop app download for attendees. Users can use this platform through a web browser.
* Users can change their background.
* Supports up to 100 call participants (in the Zoom basic plan, more can be supported in the Zoom pro plan).
* There is a chat messaging function.

Disadvantages

* Not accessible for blind facilitators.
* The chat box function is distracting for blind users as screen readers read every comment.
* It is difficult for sign language interpreters to interpret and also see the captions (used to verify spoken language at times).
* It is difficult to see the presenter and the other sign language interpreter (in a team) at the same time to monitor signs (which is part of team interpreting).
* Live captions are not available.
* Captioning needs to be ordered separately for hard of hearing participants through a third-party service.
* Closed captions must be enabled in meetings settings before the meeting starts.
* The user interface is sometimes difficult to use.
* Video conferencing requires a good internet connection, although calling in sometimes can assist with this.
* There are security issues.
* Currently, the UN Secretariat, similar to some governments, does not host Zoom due to security issues.

**Skype -** [Skype accessibility page](https://support.skype.com/en/skype/windows-desktop/everythingelse/accessibility/)

Advantages

* Accessible for blind participants using screen readers.
* Accessible for signing deaf users depending on the video quality.
* Live captions are available on the desktop and mobile versions (for video, audio and traditional phone calls).
* Closed captions are attributed to specific users.
* Users can blur their background for privacy.
* The platform can be accessed in the web browser.
* Anybody can join a call, even if they do not have a Skype account.
* Supports up to 50 call participants.
* There is a chat messaging function.

Disadvantages

* The platform does not remember preferences for captions, so they must be enabled each time.
* Users must pay to use premium features like voice mail, SMS texts, making calls to a landline, or mobile phone outside of Skype.
* Video quality is inconsistent for sign language users.

**Skype for Business (will be replaced by Microsoft Teams, refer below)**

#### Advantages

* Supports up to 250 call participants.
* Closed captions can be enabled in a Skype meeting broadcast.
* There is a chat messaging function.
* Users can blur their background for privacy.

#### Disadvantages

* Organizers must have a Skype for Business or Lync account through their organization, but participants can join as a guest.
* Not compatible with the consumer version of Skype.
* There can be difficulties logging in.
* Live closed captioning is not supported within the product.
* Closed Caption support for real-time transcription must be provided through a third-party service.
* User interface is difficult to use.
* Users must download the desktop or mobile app.

**Microsoft Teams -** [Microsoft Teams accessibility page](https://support.office.com/en-us/article/accessibility-support-for-microsoft-teams-d12ee53f-d15f-445e-be8d-f0ba2c5ee68f)

Advantages

* Accessible for signing deaf users and sign language interpreters if a small group of four or less.
* A sign language interpreter can join the meeting as a participant and the deaf or hard of hearing person can “pin” the interpreter to keep them on the screen at all times.
* Live captions available on desktop app and mobile, but only as a preview feature. This means that not all companies who use Teams will have this functionality yet.
* Accessible for blind people using screen readers.
* The platform has good picture and sound quality.
* There is a simple user interface.
* External guests can join as long as they have a valid business or consumer email address.
* Chat can be accessed within the web browser.
* Audio, video and screen-sharing activity can be recorded in Teams meetings. Automatic transcription allows users to playback the conversation and search within the transcript.
* Users can blur their background for privacy.
* Supports up to 250 call participants.
* There is a chat messaging function.

Disadvantages

* The browser-based web app version does not support real-time calls or meetings.
* Live captions are only available in English.
* Captions are not available in government clouds.
* It is challenging to carry out video meetings with four or more people using both signed and spoken languages, and with sign language interpreters.

**Google Hangouts -** [Google accessibility page](https://www.google.com/accessibility/products-features/)

Advantages

* Anyone with a Gmail account can join a Google Hangouts call.
* This platform is accessible for blind users using screen readers.[[4]](#endnote-4)
* This platform can be used in a web browser.
* There are keyboard shortcuts for video calls and within chat function.
* This has good picture and sound quality.
* It has a chat messaging function.
* Supports up to 25 call participants.
* Supports a sign language interpreter app.

Disadvantages

* Live captioning is not supported within the product.
* Live caption support for real-time transcription must be provided through a third-party service, using an app that can be added from the left margin of the video call interface.
* Non-Gmail addresses can only be added to the video meeting if the user who invites you has a G-suite account.
* Call-in options are not always available.

**WebEx -** [WebEx accessibility page](https://help.webex.com/en-us/84har3/Cisco-Webex-Meetings-and-Cisco-Webex-Events-Accessibility-Features)

Advantages

* There is the ability to “pin” one person.
* A closed captioning feature exists.

Disadvantages

* Video quality is unclear and inconsistent. Significant time lags experienced for video.
* Difficult to use for deaf participants and sign interpreters, as the pinning process is difficult. When using the pinning process, only very small thumbnails of other participants can be seen.
* Challenging when signed and spoken languages are used with larger groups.
* This platform is not accessible for blind facilitators.
* This platform is very difficult to navigate for blind users, including logging in.
* The raise-hand function is not accessible for blind users.

**Other platforms**

**Blackboard -** [Blackboard accessibility page](https://www.blackboard.com/blackboard-accessibility-commitment)

* This is very accessible and easy to use for blind users using screen readers.
* Blackboard integrates with Zoom.
* This platform is very expensive.

**Whereby**

* This is accessible for signing deaf users and sign language interpreters since many people can be viewed at the same time on the screen. The World Association of Sign Language Interpreters (WASLI) uses this for meetings with deaf and hearing interpreters.

**Other Video Calling Services**

**WhatsApp**

Advantages

* This is accessible for blind users and people who have low vision.
* This is accessible for signing deaf users via video calls. The World Federation of the Deaf uses this for daily meetings and for many regional groupings.
* This is accessible for hard of hearing people.
* This is useful for deaf people who want to communicate with sign language interpreters.
* Offers the ability to send and receive audio messages, which is accessible for blind users and users with low vision.
* Large group chats can be set up.
* Offers voice calling as well as video calling, with group calls enabled.
* Available on iOS and Android.
* Can be used with low connectivity.
* Very familiar to many people, so would not require downloading a new platform or setting up a new account.

Disadvantages

* Presentations are not possible.
* Requires a WiFi or 4G connection.

**References**

Rooted in Rights: [How to Make Your Virtual Meetings and Events Accessible to the Disability Community](https://rootedinrights.org/how-to-make-your-virtual-meetings-and-events-accessible-to-the-disability-community/)

The Big Hack: [Best video conferencing apps and software for accessibility](https://bighack.org/best-videoconferencing-apps-and-software-for-accessibility/)

Women’s Major Group webinar series on online platforms and accessibility: (1) Methodology and accessibility [recording](https://www.youtube.com/watch?v=beiWoi3I7_E&feature=youtu.be) and (2) [presentation](https://docs.google.com/presentation/d/1oqZRMp8n72A_3nwNfHtRLaoKqr-gMxsFpyXMWnfMHYM/edit#slide=id.g830b8efab8_0_0) and Logistics [recording](https://www.youtube.com/watch?v=Jidn0_1oQyE) and [presentation](https://docs.google.com/presentation/d/1J1BJfczlng96Ft_K4sLzfqMPDLCF4SBjDdNuK7CjUIo/edit#slide=id.g7304c643b8_1_990)

**Additional resources**

CBM: [Digital Accessibility Toolkit](https://www.cbm.org/fileadmin/user_upload/Publications/CBM-Digital-Accessibility-Toolkit.pdf)

Deaf/Hard of Hearing Technology Rehabilitation Engineering Research Center: [Accessibility Tips for a Better Zoom/Virtual Meeting Experience](https://www.deafhhtech.org/rerc/accessible-virtual-meeting-tips/)

[Global Initiative for Inclusive ICTs (G3ict)](https://g3ict.org/)

Inclusion Europe: [Easy-to-read information about Coronavirus available in many languages](https://www.inclusion-europe.eu/easy-to-read-information-about-coronavirus/)

International Federation of Hard of Hearing People: [Accessibility during the Coronavirus](http://www.internationaldisabilityalliance.org/sites/default/files/accessibility_during_the_coronavirus_march_23_2020final.pdf) ([Word version here](http://www.internationaldisabilityalliance.org/sites/default/files/accessibility_during_the_coronavirus_march_23_2020final.docx))

International Foundation for Electoral Systems (IFES): [Holding Accessible and Inclusive Virtual Meetings](https://www.ifes.org/sites/default/files/inclusion_insights_holding_accessible_and_inclusive_virtual_meetings.pdf)

National Deaf Center: [What strategies are available for deafblind students using interpreters remotely?](https://mailchi.mp/nationaldeafcenter/your-questions-answered-deafblind-students-changing-accommodations?e=099b3f5266) and [COVID-19 information](https://www.nationaldeafcenter.org/covid-19-information)

National Deaf Center: [How to Host Effective and Accessible Online Meetings with Deaf Participants](https://mailchi.mp/nationaldeafcenter/accessible-online-meetings-with-deaf-participants?e=099b3f5266)

University of Washington: [Creating accessible videos](https://www.washington.edu/accessibility/videos/) and [Adding captions in Zoom](https://www.washington.edu/accessibility/videos/zoom/)

World Blind Union: [WBU calls for accessible and inclusive services on Corona Virus](http://www.worldblindunion.org/English/news/Pages/WBU-calls-for-accessible-and-inclusive-services-on-Corona-Virus.aspx?platform=hootsuite)

World Blind Union, the Global Initiative for Inclusive Information and Communication Technologies, and International Association of Accessibility Professionals Webinar [on How to Create and Evaluate Digital Documents](https://www.youtube.com/watch?v=3xFVckETdR0)

World Federation of the Deaf: [Guidelines on Providing Access to Public Health Information in National Sign Languages during the Coronavirus Pandemic](http://2tdzpf2t7hxmggqhq3njno1y.wpengine.netdna-cdn.com/wp-content/uploads/2020/03/WFD-WASLI-Guidelines-SL-access-FINAL-18March20.pdf)

World Federation of the Deafblind, European Deafblind Union, the African Federation of the Deafblind, the Latin American Federation of the Deafblind: [Recommendations on inclusive policies from the global deafblind community](http://www.internationaldisabilityalliance.org/sites/default/files/deafblind_joint_recommendation-covid19_07.04.20.docx)

1. It is important to note that, unlike GoToMeeting, GoToWebinar is very challenging for blind persons since buttons are not properly labeled, particularly for the microphone. [↑](#endnote-ref-1)
2. A possible solution: the facilitator can ask participants to send questions to an email or WhatsApp group instead of using the chat box. [↑](#endnote-ref-2)
3. For details on keyboard shortcuts: <https://support.goto.com/meeting/help/use-keyboard-shortcuts-from-the-desktop-app-windows-only-g2m040026> [↑](#endnote-ref-3)
4. For details on using Google Hangouts with a screen reader: <https://support.google.com/hangouts/answer/6320673?hl=en> [↑](#endnote-ref-4)