Wireless Independence Now

An Overview of Smartphone Accessibility Features

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AGENDA

• Questions for the Group
• What is Accessibility
• iOS and Android Accessibility Features
• Assistive and Accessibility Apps
• Accessibility Resources
Questions for the Group

• What type of phone or tablet do you have?
• What do you like about your device?
• What do you not like about your device?
• How did you choose your device?
Accessibility – what does that mean?

• Wireless accessibility is the ability to access and benefit from mobile phones and tablets.

• Accessibility means that a product, device, service, or environment is available and usable to as many people as possible.
Demonstration of Apple & Android Accessibility Features
Apple Accessibility Features
Apple Accessibility Features

<table>
<thead>
<tr>
<th>VISION</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>VoiceOver</td>
<td>Off</td>
</tr>
<tr>
<td>Zoom</td>
<td>Off</td>
</tr>
<tr>
<td>Invert Colors</td>
<td>Off</td>
</tr>
<tr>
<td>Grayscale</td>
<td>Off</td>
</tr>
<tr>
<td>Speech</td>
<td>Off</td>
</tr>
</tbody>
</table>

Enabling Invert Colors or Grayscale will automatically disable Night Shift.

<table>
<thead>
<tr>
<th>INTERACTION</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch Control</td>
<td>Off</td>
</tr>
<tr>
<td>AssistiveTouch</td>
<td>Off</td>
</tr>
<tr>
<td>Touch Accommodations</td>
<td>Off</td>
</tr>
<tr>
<td>3D Touch</td>
<td>On</td>
</tr>
<tr>
<td>Keyboard</td>
<td></td>
</tr>
<tr>
<td>Shake to Undo</td>
<td>On</td>
</tr>
<tr>
<td>Vibration</td>
<td>On</td>
</tr>
<tr>
<td>Call Audio Routing</td>
<td>Automatic</td>
</tr>
<tr>
<td>Home Button</td>
<td>Default</td>
</tr>
<tr>
<td>Reachability</td>
<td>On</td>
</tr>
</tbody>
</table>

Double-tap the home button to bring the top of the screen to the bottom.

<table>
<thead>
<tr>
<th>HEARING</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing Aids</td>
<td></td>
</tr>
<tr>
<td>LED Flash for Alerts</td>
<td></td>
</tr>
<tr>
<td>Mono Audio</td>
<td></td>
</tr>
<tr>
<td>Phone Noise Cancellation</td>
<td>On</td>
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</tbody>
</table>

Noise cancellation reduces ambient noise on phone calls when you are holding the receiver to your ear.

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtitles &amp; Captioning</td>
<td></td>
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<tr>
<td>Audio Descriptions</td>
<td>Off</td>
</tr>
</tbody>
</table>
Android Accessibility Features
Android Accessibility Features

<table>
<thead>
<tr>
<th>Services</th>
<th>Power button ends call</th>
</tr>
</thead>
<tbody>
<tr>
<td>TalkBack</td>
<td>Auto-rotate screen</td>
</tr>
<tr>
<td>Off</td>
<td>Speak passwords</td>
</tr>
<tr>
<td>Switch Access</td>
<td>Accessibility shortcut</td>
</tr>
<tr>
<td>Off</td>
<td>On</td>
</tr>
<tr>
<td>System</td>
<td>Text-to-speech output</td>
</tr>
<tr>
<td>Captions</td>
<td>Touch &amp; hold delay</td>
</tr>
<tr>
<td>Off</td>
<td>Short</td>
</tr>
<tr>
<td>Magnification gestures</td>
<td>Color inversion</td>
</tr>
<tr>
<td>On</td>
<td>(Experimental) May affect performance</td>
</tr>
<tr>
<td>Large text</td>
<td></td>
</tr>
<tr>
<td>High contrast text</td>
<td></td>
</tr>
<tr>
<td>(Experimental)</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
Accessibility Features Helpful for Everyone

Apple Devices (iPhone/iPad):
• Siri – Intelligent Virtual Assistant
• Accessibility Shortcut

Android Devices (LG, Samsung, HTC Phones/Tablets):
• Google Now and Ok Google – Intelligent Virtual Assistant
• Accessibility Shortcut
Apple: Siri – Voice Control

Press and hold the Home button or say, “Hey Siri!”

Image courtesy of Apple
Type in the search bar on top or just say, “Ok Google!”
Apple: Accessibility Shortcut

LEARNING
Guided Access: Off

INTERACTION
Switch Control: Off
AssistiveTouch: Off
Call Audio Routing: Automatic
Home-click Speed: Default
Reachability: Double-tap the home button to bring the top of the screen into reach.

Accessibility Shortcut: Off

TRIPLE-CLICK THE HOME BUTTON FOR:
VoiceOver
Invert Colors
Grayscale
Zoom
Switch Control
AssistiveTouch
Android: Accessibility Shortcut

When this feature is turned on, you can quickly enable accessibility features in two steps:

Step 1: Press and hold the power button until you hear a sound or feel a vibration.

Step 2: Touch and hold two fingers until you hear audio confirmation.

If the device has multiple users, using this shortcut on the lock screen temporarily enables accessibility until the device is unlocked.
Accessibility Features for People who have Difficulty Hearing

Apple Devices (iPhone):
• Vibrate on Ring
• LED Flash for Alerts
• Video Calling
• Hearing Features
• Subtitles & Captioning

Android Devices (LG, Samsung, HTC, Motorola Phones):
• Also Vibrate on Ring
• Pulse Notification Light
• Video Calling
• Hearing Features
• Captioning
Apple: Vibrate on Ring, LED Flash for Alerts

Vibrate on Ring

- General
- Display & Brightness
- Wallpaper
- Sounds
- Touch ID & Passcode
- Privacy
- iCloud
- iTunes & App Store
- Passbook & Apple Pay
- Mail, Contacts, Calendars

LED Flash for Alerts

- General
- Accessibility

- Hearing Aids
- LED Flash for Alerts
- Mono Audio
- Phone Noise Cancellation

Noise cancellation reduces ambient noise on phone calls when you are holding the receiver to your ear.

- MEDIA
- Subtitles & Captioning
- Video Description

Adjust the audio volume balance between left and right channels.
Apple: Video Calling (FaceTime)
Apple: Built-in Hearing Features

- **Hearing Aids**
- **LED Flash for Alerts**
- **Mono Audio**
- **Phone Noise Cancellation**

Noise cancellation reduces ambient noise on phone calls when you are holding the receiver to your ear.

Adjust the audio volume balance between left and right channels.

**Hearing Aids Mode**

Hearing Aid Mode improves audio quality with some hearing aids.

**Pair Made for iPhone Hearing Aids. Other hearing aids are paired in Bluetooth settings.**
Android: Vibrate for Calls & Pulse Notification Light

Vibrate for Calls

Pulse Notification Light

Hangouts Message
Other sounds
Cast
Notification
Pulse notification light
When device is locked
Show all notification content
App notifications
Advanced
Notification access
Apps cannot read notifications
Do Not Disturb access
Android: Video Calling (Hangouts)
Android: Hearing Features
Apple: Subtitles & Captioning

Adjust the audio volume balance between left and right channels.

MEDIA

Subtitles & Captioning

Audio Descriptions  Off

LEARNING

Guided Access  Off

Accessibility Shortcut  Off

Closed Captions + SDH

When available, prefer closed captioning or subtitles for the deaf and hard of hearing.

Style  Default
Android: Captioning
Accessibility Features for People who wear Hearing Aids

Made for iPhone hearing aids provide a high quality audio connection from your paired iPhone, iPad, or iPod touch directly to your hearing aid without additional hardware and will allow you to manage your hearing aid right from your device.

Third party apps from hearing aid manufacturers allow you to customize audio on their Android device through the app.

Apple Devices (iPhone/iPad/iPod):
• Made For iPhone Hearing Aids

Android Devices (LG, Samsung, HTC Phones):
• Third party apps from hearing aid manufacturers
Made for iPhone Hearing Aids

Examples of Made For iPhone Hearing Aid Manufacturers:

- Audibel
- Audigy
- Beltone
- Cochlear
- Microtech
- NuEar
- Resound
- Starkey

Manage settings directly on iPhone
Android Hearing Aid Apps

Hearing Aid Manufacturers offering Third Party Apps for Android:

- Beltone
- NuEar
- Resound
- Starkey

Example – 3rd Party TruLink App
# Examples of Apps for Hearing Loss

<table>
<thead>
<tr>
<th>App</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton CapTel</td>
<td>• Listen to your phone conversations while reading word-for-word captions of what's said to you</td>
</tr>
<tr>
<td>TruLink</td>
<td>• Connects your hearing aids to your Android or iPhone</td>
</tr>
<tr>
<td></td>
<td>• Easily adjust volume and customize performance to unique situations</td>
</tr>
<tr>
<td>What’s App</td>
<td>• Simple real-time instant messaging</td>
</tr>
<tr>
<td>Skype</td>
<td>• Free instant messaging, voice or video calls</td>
</tr>
</tbody>
</table>
Accessibility Resources

- AT&T Accessibility (download presentations) – att.com/accessibility
- AT&T Digital You – digitalyou.att.com
- AT&T for Disability and Aging for Wireline Services – Voice: 1-800-772-3140; TTY: 1-800-651-5111
- Wireless RERC – wirelessrerc.org
- LiveWell RERC – livewellrerc.org
- FCC Accessibility Clearing House – ach.fcc.gov
- Global Accessibility Reporting Initiative (GARI) – gari.info
If you have any questions, contact:

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– 404-894-7034