Wireless Independence Now

An Overview of Smartphone Accessibility Features

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• General Questions
• What is Accessibility
• iOS and Android Accessibility Features
• Assistive and Accessibility Apps
• Accessibility Resources
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 iOS & Android Accessibility Features
Apple Accessibility Features
# Apple Accessibility Features

<table>
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<tr>
<th>General</th>
<th>Accessibility</th>
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<td><strong>VISION</strong></td>
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<tr>
<td>VoiceOver</td>
<td>Off</td>
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<tr>
<td>Zoom</td>
<td>Off</td>
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<tr>
<td>Invert Colors</td>
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<tr>
<td>Grayscale</td>
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<tr>
<td>Speech</td>
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*Enabling Invert Colors or Grayscale will automatically disable Night Shift.*

| Larger Text | Off |
| Bold Text | |
| Button Shapes | |
| Increase Contrast | |
| Reduce Motion | Off |

| **INTERACTION** | |
| Switch Control | Off |
| AssistiveTouch | Off |
| Touch Accommodations | Off |

| 3D Touch | On |
| Keyboard | |
| Shake to Undo | On |
| Vibration | On |
| Call Audio Routing | Automatic |
| Home Button | Default |
| Reachability | |

*Double-tap the home button to bring the top of the screen into view.*

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| **HEARING** | |
| Hearing Aids | |
| LED Flash for Alerts | |
| Mono Audio | |
| Phone Noise Cancellation | On |

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

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<th>L</th>
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<tr>
<td>Adjust the audio volume balance between left and right channels.</td>
<td></td>
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| MEDIA | |
| Subtitles & Captioning | |
| Audio Descriptions | Off |
Android Accessibility Features
Android Accessibility Features

- Services
  - TalkBack
    - Off
- Switch Access
  - Off
- System
  - Captions
    - Off
  - Magnification gestures
    - On
- Display
  - Color inversion
    - May affect performance
  - High contrast text
    - (Experimental)
  - Large text
  - Touch & hold delay
    - Short
  - Text-to-speech output
  - Auto-rotate screen
  - Speak passwords
  - Power button ends call
  - Accessibility shortcut
    - On
Accessibility Features Helpful for Everyone

Apple Devices (iPhone/iPad):
• Siri – Voice Control
• Accessibility Shortcut

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

Press and hold the Home button or say, “Hey Siri!”
Type in the search bar on top or just say, “Ok Google!”
Apple: Accessibility Shortcut

- General
- Accessibility
  - 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

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

[Image of iOS settings screen showing Accessibility options]
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 Thinking

Apple Devices (iPhone/iPad):
- Guided Access
- VoiceOver – Screen Reader
- Text-to-Speech
- Speak Selection
- Dictation
- Video Calling (FaceTime)
- Reminders

Android Devices (LG, Samsung, HTC, Motorola Phones/Tablets):
- Talk Back – Screen Reader
- Speak Passwords
- Text-to-Speech Output
- Dictation
- Video Calling (Hangouts)
- Google Keep
Apple: Guided Access

Guided Access

Guided Access keeps the iPhone in a single app, and allows you to control which features are available. To start Guided Access, Triple-Click the Home button in the app you want to use.

Passcode Settings

Time Limits

Accessibility Shortcut

When you Triple-Click the Home button while Guided Access is enabled, your Accessibility Shortcut settings will be displayed.

Set Passcode

Enter a passcode

1 2 3
ABC DEF

4 5 6
GHI JKL MNO

7 8 9
PQRS TUV WXYZ

0

Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another

Options

Circle areas on the screen you would like to disable.
Apple: VoiceOver – Screen Reader

VoiceOver speaks items on the screen:
- Tap once to select an item
- Double-Tap to activate the selected item
- Swipe three fingers to scroll

SPEAKING RATE

Speak Hints
Use Pitch Change
Use Sound Effects

Speech
Android: TalkBack – Screen Reader

When TalkBack is on, your device provides spoken feedback to help blind and low-vision users. For example, it describes what you touch, select, and activate.
Apple: Text to Speech & Speak Selection

Speak Selection Settings

- **Speak Selection**
  - A Speak button will appear when you select text.

- **Speak Screen**
  - Swipe down with two fingers from the top of the screen to hear the content of the screen.

- **Voices**
  - **Speaking Rate**
    - Use the slider to adjust the speaking rate.
  - **Highlight Content**
    - Highlight content as it is spoken.
Android: Speak Passwords
Android: Text-to-Speech Output

- Power button ends call
- Auto-rotate screen
- Speak passwords
- Accessibility shortcut
  On
- Text-to-speech output
- Touch & hold delay
  Short
- Display
  Color inversion
    (Experimental) May affect performance
- Color correction

Preferred engine
- Google Text-to-speech Engine

General
- Speech rate
  Speed at which the text is spoken
- Listen to an example
  Play a short demonstration of speech synthesis

Default language status
- English (United States) is fully supported
Android: Dictation
Apple: Video Calling (FaceTime)

Image courtesy of Apple
Android: Video Calling (Hangouts)
Apple: Reminders

- Reminders screen
- Add reminder: Buy milk
- Reminder details: Remind me on a day, Alarm, Repeat, Remind me at a location
- Priority: None
- List: Reminders
- Notes
Android: Google Keep

What's new in Google Keep

Add quick note

- What's new in Google Keep
  Android Wear
  Notes, reminders, and lists on Android wearables
  
  actually oh right no no I'm not coming nevermind
  
  Boat trip
  Sad for laptop
  Battery for router
  Finns, mask, snorkel (snorkel? Ems)
  Daniel mask
  Dramamine
  Router?
  Wikipedia image
## Examples of Apps for All

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<th>Evernote</th>
<th>PillBoxie</th>
<th>Remember the Milk</th>
<th>Mint</th>
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<td>• Take notes in a variety of formats, including: text, sketches, photos, audio, video, PDFs, web clippings and more</td>
<td>• Customizable medication reminder</td>
<td>• Note taking app designed for people with substantial loss of vision</td>
<td>• Simple spending tracker, budget creator and bill reminder</td>
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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
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– 404-894-7034