Android Accessibility Setup

When testing for Android accessibility, it is important to ensure that all testers are using the latest software and best practices. The following steps outline the basic setup procedures recommended for new devices.

**Updating Phone Firmware**

Start by ensuring the device includes the latest available firmware. Generally, this is found under Settings, About Phone or Settings, Software Update. Check for updates and install updates for latest version of Android, if available. Note that some devices may require multiple updates be installed. After updating a device, check again on this screen to see if another firmware update is available.

**Updating Apps on the Play Store**

Next, go to Google Play on your device. You may need to create or link your device to a Google account. There are three apps that should be updated:

• Chrome: Google's web browser

• Talkback: Provides accessibility services for speech users

• Android Web View: Provides components used for rendering web content from within apps

Alternatively, you can select to update all apps on your device, which will include the items listed above.

**Important Note:**

Significant accessibility improvements have been made beginning with Talkback version 4.5 in combination with Google Chrome 50. For best results, ensure that your device is running Talkback version 4.5 or later and Google Chrome version 50 or later.

**Enabling Talkback**

Talkback is the accessibility service that provides feedback for users requiring speech feedback. To enable Talkback, go to Settings, Accessibility, Talkback and select the On Switch. Samsung users will go to Settings, Accessibility, Vision, Talkback. From this point, the gestures used to interact with your device will change, which is explained below.

**Basic Navigation With Talkback**

When Talkback is enabled, the method for navigating the screen changes. You can move your finger around the screen to speak available items. This will move focus to that item, but not activate it. To activate the last spoken item, tap twice in rapid succession anywhere on the main part of the screen. This is commonly referred to as a double tap.

You can also move through elements systematically. To move forward through elements on the screen, swipe right using one finger. Swipe left with one finger to move back through the elements. Your focus will wrap when you move past the beginning or end of the list.

**Scrolling and Lists**

Talkback includes a few gestures to help you scroll through multiple page lists. To scroll down through a list, focus any item on the list and then take two fingers and slide them from near the bottom of the screen toward the top. This will scroll the list forward. To scroll backwards through the list, swipe two fingers from near the top of the screen toward the bottom. Be sure to start the gesture below the notification area to avoid pulling down the notification shade.

Alternatively, you can page through a list one screen at a time. To move forward, focus any list item and then swipe right then left with one finger. In other words, place a finger on the left side of the phone, swipe to the right, and then quickly swipe back to the left without releasing your finger. To scroll backwards, swipe left then right with one finger.

**Recommended Talkback Settings**

There are a few Talkback settings that will help save some time during testing and improve your experience. To get to these, go to the Talkback screen and select the Settings button.

• Vibration Feedback: Turning this option off will eliminate vibratory feedback from Talkback. The vibrations do not provide any additional information and may not be desirable by some testers.

• Display context menu as list: It is recommended to check this setting to improve overall navigation.

• Manage Gestures: Select this option to change the gestures that are used by Talkback. It is recommended to assign Swipe Up to Previous Navigation, sometimes called Previous Granularity, and Swipe Down to Next Navigation or Granularity. These gestures are likely enabled by default in later versions of Talkback.

**Suspending and Resuming Talkback**

During testing, it may at times be beneficial to temporarily suspend Talkback and resume it again when ready. To do this, enable the “Talkback Suspend and Resume” shortcut under the

miscellaneous section of Talkback settings. Once enabled, the shortcut, usually defined as a long press of the “Volume Up” and “Volume Down” buttons, can be used to suspend and resume Talkback from anywhere.

**Additional Samsung Settings**

For users of Samsung devices, some additional options are available. From Settings, Accessibility, select the Direct Access option. From this screen, Enable Direct Access and check the Talkback box. This will allow you to press the Home button three times in rapid succession to enable and disable Talkback.

In addition, under Settings, Accessibility, Vision, select the Rapid key input option. This will make it easier to enter text using Talkback.

**Changing Granularity**

Generally, you will want to swipe right and left through each element to ensure it is being properly rendered by Talkback. In some cases, you may wish to navigate by other elements such as controls or headings. To do this, swipe up or down to cycle through the various navigation elements. This assumes you configured the Talkback gestures described above. Talkback will speak the name of the new navigation level, such as Controls. To return to normal navigation, swipe up or down until you hear the word “default” spoken.