

# Selecting an Android Phone or Tablet

## Issue with Huawei Phones produced May 2019 and onwards

Due to Google's revocation of Huawei's Android license, any Huawei devices produced after May 2019 would not support any Google apps including apps on the Google Play app store. This prohibits the ability to install and update CommCare using the Google Play app store on these devices and hence these Huawei devices are currently **not recommended** for CommCare usage.

## Procure a Mobile Device Management Tool

We strongly recommend you procure a mobile device management tool to manage your devices, the data used on the devices, the apps used, and the time spent on each app. Dimagi has an MDM solution you can consider called [Focus](#) that is tailor-made for international development projects with low-or-no connectivity. We have seen large i-NGO's use MDM solutions to secure their patient/user data, save money with restricted data usage and increase their frontline productivity.

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## Things to think about when selecting an Android phone:

Once you have reviewed our list of recommended phones, there are a few things to consider before choosing one.

- Availability in-country.
  - In case of theft or damage, there should be a reasonably fast and efficient way to get a replacement.
  - Local phones also come with the right fonts/character set, dates, voltages, and plugs needed in-country
  - Availability of local servicing outlets in case of device damage and need for repair
- If not sourcing locally:
  - Unlocked. Particularly if sourcing a phone from a high-income country, many phones get locked into particular network providers.
  - Correct frequency band for the country of deployment
  - Correct languages are available by default (i.e. phone purchased in US might need to support French language for West Africa)
- Accessories (might include SD card, SIM cards (**Note:** verifying that the device can accept a SIM card is especially important when looking at Tablets. Many popular models come in both **SIM** and **WiFi only** varieties), solar chargers, extra batteries, extra chargers (if poor quality grid electricity), plug adapters (if sourced from somewhere with different plugs), locks or boxes to prevent theft (if phone is attached to a facility), engraver to label devices (to prevent theft)...
- Battery life. This is particularly important if you're working in rural areas where access to power can be infrequent or expensive.
- Longevity of the platform. Will the model you choose still be available in-country in 3 years, 5 years, 10 years?
- Likelihood of theft. Is the phone similar to others in the region or will it stand out as obviously a higher-end phone?
- Ruggedization. How easy is it to break the phone?
- Cost
- Speed/memory
- Screen size and resolution
- Desired features (e.g. camera, GPS)

Table: Device Selection Criteria

	SMS	Android Phone	Android Tablet	Computer	Feature Phone (JAVA Enabled)
<b>Hardware Factors</b>					
<b>Availability</b>	All Phones	Country Dependent	Country Dependent	All PCs or Laptops	Country Dependent
<b>Battery Life</b>	High	High (1 – 1.5 days)	Medium (1 day)	Low (4 hours)	High (2-3 days)
<b>Durability</b>	High	Medium	Medium	High	High
<b>Initial Cost</b>	n/a	\$150 - \$250	\$400 - \$600	\$500	\$75 - \$100
<b>Usability Factors</b>					
<b>Questions per Transaction</b>	1	1,000s	1,000s	1,000s	100s
<b>Cases stored per device</b>	0	1,000s	1,000s	unlimited	100s
<b>Questions per screen</b>	0	3-5	5-7	unlimited	2-3

Works Offline	No	Yes	Yes	No	Yes
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## Picking your Android phone:

CommCare runs on Android OS 4.1 or above. Though it's highly recommended that we go for phones on higher end of available Android OS spectrum to ensure longer term CommCare support for the project. There are known issues supporting some fonts. Many Android devices currently do not support Tamil or Hindi script, and any script font in general should be tested on a locally available Android device for compatibility.

## Android Phone Checklist

When choosing an Android to test for CommCare compatibility (in general or for your project), ask yourselves the following questions. **If you've answered "No" to any of the following questions, the phone is probably not best for your specific deployment, however please document any known issues** on the [help site](#) so we have a log of tested phones and known limitations. i.e. Because your phone doesn't support Telugu script, that doesn't mean the phone won't be relevant for other deployments throughout India.

1. Is the Android Operating System (OS) version 4.1 or higher
  - a. Test by going to Settings -> About Phone
2. Does the phone have internal memory (>4 GB) OR does it have expandable memory through an SD card?
  - a. Note: If the phone is running Android OS 4.0 or higher, your phone can treat the internal memory as an SD card, so it is not necessary to have expandable memory if the internal memory is large enough (>4 GB).
3. Does the phone come with an SD card slot?
4. Does the phone support WIFI?
5. Does the phone have GPRS? Will this work with different telecom providers?
6. Does the phone have GPS?
7. Does the phone have access to the Google Play Store?
8. Does the phone support all the languages you need for your project?
  - a. To test this, go to <http://www.unicode.org/charts/> and open the chart for your desired language
9. Can the entire phone settings be switched to another language?
10. Does the phone work with the telecom provider you intend to use? (i.e. Can you make a call, use the internet, submit a CommCare form?)
11. (For India) Is the phone less than Rs. 6000?
12. Are there plans in the near future for this phone model to be discontinued?
13. Will local vendors at your project site understand the functionalities of this specific model?
14. Will the keyboard type work well for your deployment?
15. Is the keyboard easy to use?
16. Is it easy to press the center/middle button?
17. Generally how usable is the home screen – is it easy to navigate the application and hard to make mistakes?
18. Battery life test: use the phone for a day to test the battery life.

## CommCare Android phone hardware/software requirements:

1. Android operating system 4.1 or higher
2. Support a minimum of a 2G mobile network

## I've selected a phone, now what do I do?

After you have narrowed down our list of recommended phones to the models that best fit your project, we highly recommend that you procure a test phone. You can then use that test phone to test out your application to make sure that it performs well on the phone model you have chosen.

Here are a few things to consider when testing your application on the phone:

1. Does the desired language work in CommCare?
2. Examine the screen size/resolution. Do images and text show up clearly on the phone?
3. Does the phone have quality audio when played in CommCare?
  - a. When the audio is played at full volume, will this be audible for an audience with auto rickshaws and trucks from Punjab honking by?
4. Video: Does this open directly in CommCare? Does it require another application?
5. Do you like it?

## Not sure about whether to select an Android phone or tablet for your project?

Go [here](#).