Selecting a J2ME Phone

As of 2016, Dimagi only recommends beginning new projects on Android phones. It has become increasingly difficult to find large quantities of feature phones that support CommCare. Androids are becoming much more common and affordable, and most CommCare active development is focused on the Android platform. In the past we would recommend feature phones when they were the dominant type available locally, the battery life was extremely important, and there was sufficiently robust supply of devices. As of late 2016, most feature phones have become increasingly incompatible with modern technology standards, causing new limitations in their use. While we still support our Java platform, we do not recommend that any new projects begin on a feature phone platform.

Things to think about when selecting a J2ME 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**
- **Correct frequency band for the country of deployment**
- **If not sourcing locally:**
  - **Unlocked.** Particularly if sourcing a phone from a high-income country, many phones get locked into particular network providers and may require special SIM cards to work properly.
  - **Initial cost.** The initial cost of the phone should be considered, as some countries may require additional taxes or duties.
  - **Correct frequency band for the country of deployment.** Some phones may only work with certain frequency bands, which can limit their use in certain regions.
  - **Ruggedization.** How easy is it to break the phone?
  - **Speed/memory.** These features are important for the performance of the phone.
  - **Screen size and resolution.** A larger screen can be helpful for displaying information.
  - **Desired features (e.g. camera, GPS).** These features can be important depending on the project requirements.

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Picking your J2ME Phone:

**Feature Phone Checklist**

Here is a list of questions/issue to consider before deciding on a phone:

1. Is the phone JAVA enabled? (Note: You can figure this out by reviewing the phone specs provided by the manufacturer. A feature phone must be JAVA enabled in order to run CommCare)
2. Does the phone support all fonts that you require for your project? (i.e. can you put the phone into the language you need)
3. When you run CommCare on the phone, does the font work within CommCare?
4. Does the phone work with the telecom provider you plan to use? (i.e. can you make a call, use the Internet, submit a CommCare form) Does the phone’s GPRS work with different telecom providers?
5. Examine the screen resolution/size- do images well rendered on the phone?
6. What is the quality of the audio when played on the phone?
7. Do module and form icons display correctly?
8. Does audio in module and form names play correctly?
9. Where is the speaker located and is it convenient? (if the phone is going to be used to play audio messages it should be relatively easy to listen close to the speaker)
10. Does pressing the hash (#) button play CommCare audio? Does pressing the hash button play CommCare video?
11. Is it easy to press the middle button? (some phones have confusing middle buttons)
12. Is the key pad easy to use? Are the buttons raised vs. flat?
13. Is there a memory card slot in the phone?
14. Does the phone support internet?
15. Video: Does this open directly in CommCare or require another application?

CommCare J2ME/Java phone hardware requirements:

- SIM card compatible
- J2ME MIDP2.0 / CLDC 1.1
- At least 2MB Java heap
- At least 1MB max jar size
- Screen Resolution (240x320 or better)
- microSD memory slot for 16 or 32 GB
- GPRS and EDGE compatible
- Supports jpg, mp3, 3gp, png multimedia formats
- Fully tested local language (e.g., Hindi) font rendering
  - note for users outside India: of the phones listed below as having failed a performance test, none failed solely on the condition of Hindi font support; all had at least one other shortcoming
- SD cards, 8GB per phone CommCare works much better with an SD card!
- Availability in location desire to purchase
- Handsfree Speaker with adjustable loudspeaker volume (prefer >= 60 dB) with good quality (noise/crosstalk)
- Audio headset jack with headphones included (Nokia AV 3.5mm phone port)
- Will retain security settings/http connectivity
- Have installed and verified that CommCare application runs (some J2ME phones simply can't run arbitrary software on them)

(optional requirements depending on how the application will be used)

- Numeric keyboard (not full qwerty)
- Other keys on keypad: 2 Labeled Soft Keys; 5-way Scrolling
- Camera, at least 2 Megapixel resolution
- Camera stores images in JPEG format

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 show up well on the phone?
3. Does the phone have quality audio when played in CommCare?
4. When the audio is played at full volume, will this be audible for an audience with auto rickshaws and trucks from Punjab honking by?
5. Video: Does this open directly in CommCare? Does it require another application?
6. Do you like it?