Android Data Privacy

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Mommy, mommy! I'm scared!

What's wrong, honey?

There's a green ghost on this chocolate bar!

Don't be silly! It's just a Google Android!

It can't hurt you!

So I shouldn't worry that an omnipresent technology company that knows everything we do online and with our phones, is joining forces with a multi-national food corporation that has a long history of nefarious activity, including child labor, the promotion of infant formula over breastfeeding, rainforest deforestation, price fixing, and whose CEO once said the idea of water as a basic human right was "extreme"?

Daddy! Daddy! We're scared!
DISCLAIMER

- This is my experience. I am not an expert. YMMV.
- There is NOT a lot of information out there on this subject
- I'm sure this is not the only way to accomplish my goals
- This may not be the best way to accomplish my goals
- Alternatives are welcome!
Why I moved from iPhone to Android

- I found myself not using my smartphone for things I should have been
- Keyboard too small
- Keyboard not replaceable
- Harassment of BLU members
- Requires iTunes/Windows/Outlook for syncing
- Syncing and updates failed regularly
The Problem

- Android devices are designed, first and foremost, to be data collection devices for Google.
- Under normal usage (if you're an average user not actively trying to prevent it), they get access to all of your contacts, calendar, configuration settings, Facebook contacts, etc.
- Even if I were not a bit of a privacy nut, I don't feel I have the right to give out other peoples' contact information.
- Not syncing your data is not an options because it can't practically be backed up without rooting.
The Solution

- Sync data with your own server(s)
- Use cross-platform programs
- Use programs that can back up or export their data
- Use programs with built-in web servers
- Use programs that are usable on your phone
Limitations

- Decide what information you MUST protect and what data is OK to share if you must. Some data will be harder than others to protect.
- Remember there's a time/labor/money cost to most things you'll do in the name of privacy.
- What apps you install later can greatly affect your privacy.
- The application-level permissions are VERY coarse-grained.
- I do not want to steal content, data, media, etc.
Solution: OwnCloud

- Web-based calendar with CalDav server
- Web-based contacts with CardDav server
- File Sync with cross-platform clients*
- Music sharing
- Bookmarks, notes, task list, and many other applications
- Requires your own server
- Needs a work-around for an Android bug to maintain account information
Solution: AirDroid

- [http://airdroid.com/](http://airdroid.com/)
- Drag and drop file transfers over wireless
- Send text messages from your computer via phone
- View photos, videos on your phone
- Remote phone locking/locating
- Take pictures using your phone's camera
- Share clipboards
- Make calls
Solution: mSecure Password Manager

- [https://msevensoftware.com/msecure_android](https://msevensoftware.com/msecure_android)
- 256 bit Blowfish Encryption
- Auto lock, auto field hiding, Optional self-destruct
- Password Generator to create unguessable passwords.
- Many templates, categories, for ease of use
- Many syncing options, including emailing encrypted DB
- Cross-platform (though not Linux)
- Built-in browser with auto-fill fields
Solution: HanDBase

- [http://www.ddhsoftware.com/handbase.html](http://www.ddhsoftware.com/handbase.html)
- Powerful database application with views, filtering, sorting and (soon on Android) forms
- VERY usable right on the smartphone
- Lots of field types, including lookups into other databases
- Web server for upload/download of databases as well as import and export of records as CSV files
- Field-level and database-level encryption
- Cross-platform (though not Linux)
Solution: Wiki

- The most reliable way to securely sync data is to not sync data
- Information on a wiki is available and editable from everywhere
- I use Foswiki (http://www.foswiki.org), which is a branch of TWiki
  - Real user/group/permission authorization
  - MANY plugins enabling advanced functionality
  - Great support team on IRC and email
  - Pretty good WYSIWYG editor
  - Page metadata allows for “applications”
Solution: Toodledo

- https://www.toodledo.com/
- Web-based task manager
- This does NOT run on my server. This was a compromise
- Many compatible client applications for smartphones, plus mobile website
- Back up and restore, export and import, so you're not locked into it
Solution: AmazonMP3

- http://www.amazonmp3.com
- Amazon sells DRM-free MP3s that will work on any device. If you don't like lossy compression, then find another service.
- When you buy music from them it's available in the cloud, and accessible from their Android and IOS apps.
Solution: Hardware IO

- Creating and editing content on the S4 is much easier for me than on the iPhone, but it's still challenging at times due to selecting, no delete, moving around
- Bluetooth keyboard works great, including arrow keys
- Bluetooth mouse works great
- USB mouse/keyboards work with OTG adapter