Outline

- Goals
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- General design
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Goals

1) Find an open source application to operate in a decentralized context.
2) Identify the parts of the app where data is stored into centralized systems
3) Find a way to store that data in Cothority instead.
Description of the application

First idea: adapt an open source Dropbox like application (Seadroid)

Simplified idea: turn a note taking app into a multi-user app to share text documents (Memento)

Features:
1. Each user has one or many roles who define his rights
2. A publisher can create and share documents with other users
3. A reader can read documents shared with him and give read access to another user. This process is known as delegation.
4. A delegated reader can only read documents shared with him
General design

**Publisher Darc**
- spawn:calypsoWrite
  - Publisher
  - Reader darc
- spawn:calypsoRead
  - Publisher
  - Reader darc
  - ...
- spawn:longTermSecret
  - Publisher
- invoke:longTermSecret.reshare
  - Publisher

**Reader Darc**
- _sign
  - Reader
  - Delegate reader
  - ...

NOTE: one reader Darc per reader!
Demo
Conclusion

- It works but slowly...
- Problem: crypto functions generate tons of object that are never destroyed
- With a way to store any type of document -> Dropbox like application
- Future work: reduce network traffic by storing encrypted data on the phone