File storage and file sharing for human rights organizations
A design research case study

Least Authority   /   **Allon Bar**   &   **Abigail Garner**

FOSDEM 2020   /   02   /   02

About this project

About this project:

- Making secure file sharing and storage easier to use for human rights organizations

- Using [Tahoe-LAFS](#), a decentralized, secure file system

- 4 partner organizations:
  - Sursiendo — Mexico
  - Paradigm Initiative — Nigeria
  - The BachChao Project — India
  - ADC — Argentina

Why human rights organizations?

Why focus on human rights organizations?

- Collecting and storing very sensitive data

- High risk / high impact when files are compromised

- Limited resources and time to learn new tools

- Aligned with Least Authority's mission

What did we want to learn?

Phase 1   Feb. - Oct. 2019

Study goal

Describing file storage and sharing needs of human rights organizations

Methodology

- Selecting human rights organizations

- Survey on file storage / sharing

- Follow-up foundational interviews
  (1 in-person, 3 remote)

Phase 2

<div align="right">Nov. 2019 - Aug. 2020</div>

Study goals

Describing file storage, sharing and collaboration use cases for human rights organizations

Describing sharing experiences of people working for human rights organizations using Gridsync

Methodology

- Foundational interviews focused on file sharing/collaboration (3 in-person, 2 remote).

- Moderated usability test (2 in-person, 2 remote), using Gridsync (a GUI for Tahoe-LAFS) on their own computers.

What did we learn?

Phase 1
Needs finding

Organizations have different file storage and sharing needs

Choosing tools

- Security threats inform security practices

- File size

- Collaboration needs

- Ease of use

- Privacy features/reputation

- Cost

- Partner choice...

Partners of human rights organizations influence tool choice

Collaboration is an important use case

Recommendations (incl.)

- Focus on collaboration/sharing use cases:

    - Version control

    - improved sharing workflow

- Ease of use

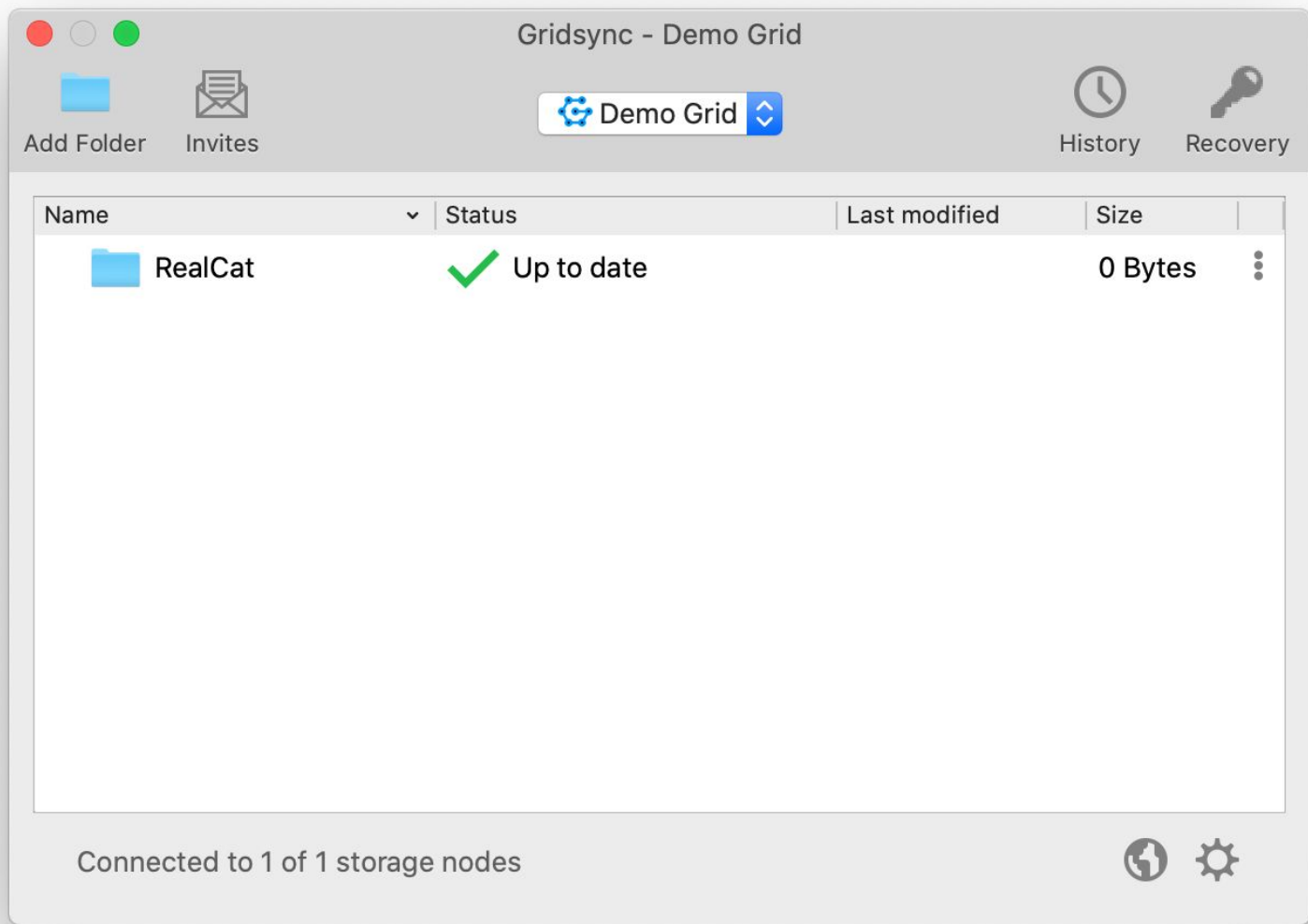# Phase 2: Sharing/ collaboration needs + usability

Version control important when collaborating

Version control important when collaborating
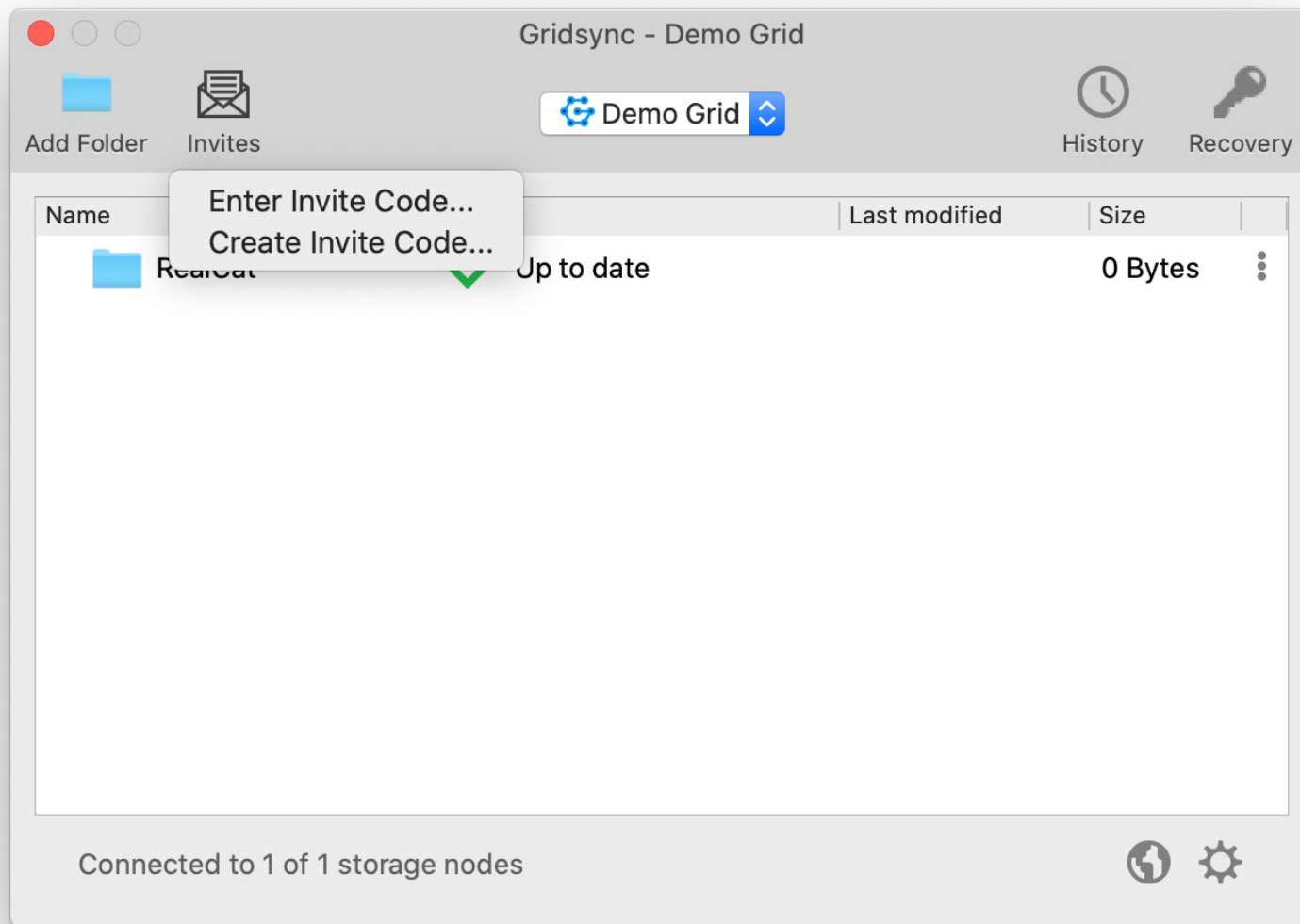
Four identified needs:

- Viewing/restoring **earlier versions**

- Viewing **tracked changes** (comparison mode)

- Viewing **when** changes were made

- Viewing **who** has made changes
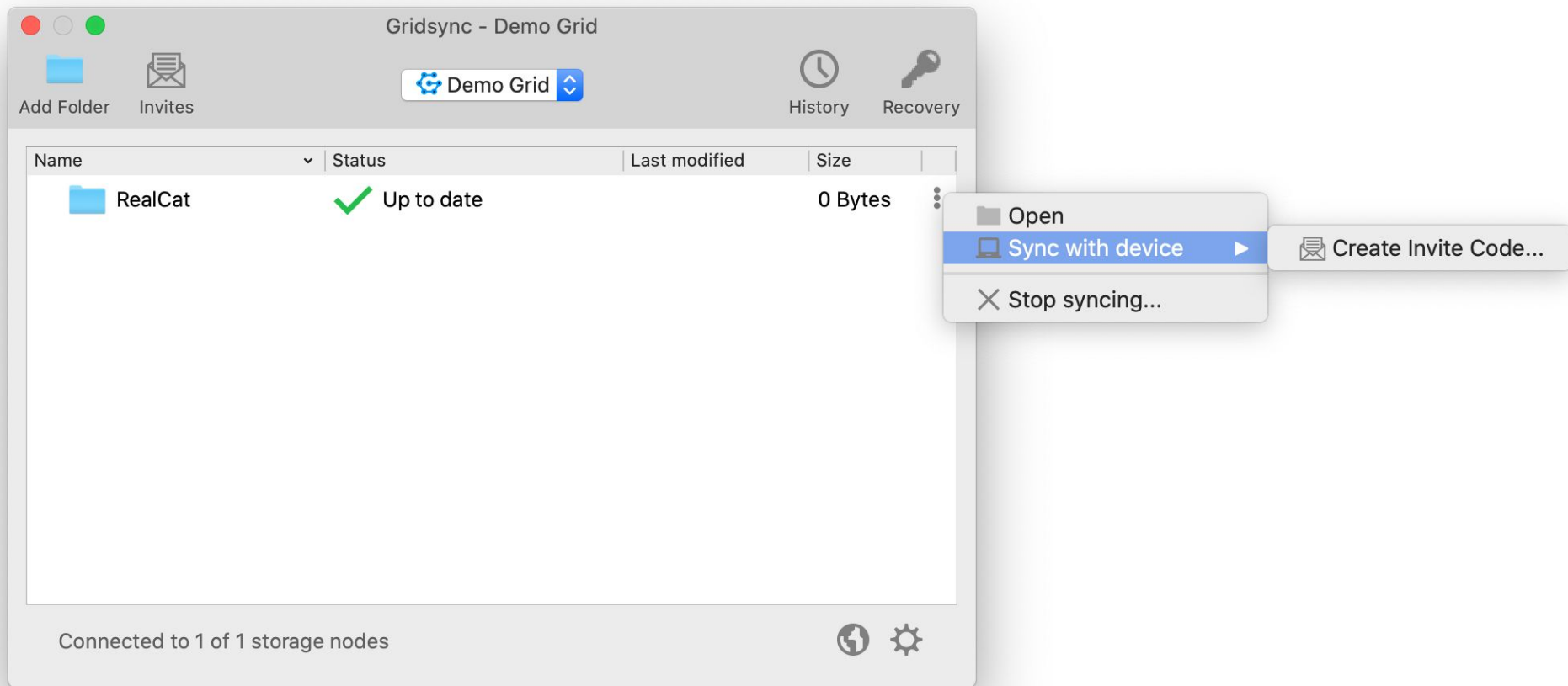
Sharing usability in Gridsync

Sharing a folder in Gridsync

Initiating sharing not so intuitive

One of the ways to initiate a sharing action in Gridsync

Another way to initiate a sharing action in Gridsync

People grasp well that sharing is bidirectional

Recommendations (incl.)

- Version control:

    - Previous versions

    - When

    - Who (explore)

- Sharing workflow

    - User interface / copy to reflect user intent

    - More guidance

- More user testing

Process lessons

—

Allow ample time for strategic outreach to identify ideal partners.

—

Provide incentives that value partners' time and expertise.

Define clear expectations and commitment.

Low-bandwidth and other connectivity limitations

Respect privacy needs of organizations and individuals. Ask before making information public.

Next steps

More resources

[Least Authority website](#)

[Blog post about this project](#)

[Tahoe-LAFS website](#)

[Gridsync](#) on Github

[Magic Folders](#) on Github

[Magic Wormhole](#) on Github

Questions?