Moderated group authoring among weakly connected workgroups
Surendar Chandra & Nathan Regola

Collaboration among contemporary users

Goal: workgroup users modify shared documents to create authoritative version

- Contemporary users are wireless
- Analyzed wireless users at ND ('06, '07-'08), IBM ('02), Hotspot federation (Île Sans Fil '04-'07) and SIGCOMM '01
  - short session, long duration between sessions
  - session durations becoming shorter
- Analyzed centralized (exclusive, last writer wins) and distributed (bayou like) collaboration mechanisms
- Poor performance when more group members are online and available for collaboration
- Operating on a shared copy is not tenable for wireless users

Moderated collaboration

- Each member exclusively maintains own updateable copy of shared document
- Users can hoard read-only copy of other’s version
- Each member independently moderates (manual reconciliation) and incorporates changes from others using read only replicas
- Eventually converge through successive moderations
- Facilitate convergence by provenance logging of files opened during update session
- User queries provenance log of read only replica to see if other user has incorporated her changes
- Open = incorporate

Source: http://flockfs.sourceforge.net/ (Mac OSX+git+fuse)