DTN Usability Project

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Application Background

- Social-networking/peer-to-peer on mobile handsets
- Inspired by iPhone apps with DTN-like functionality

Interested in usability and stability of DTN software on mobile handsets.

Usability

- Functional default configuration
- Simple off/on “switch” for DTN stack
- Robust in the face of roaming networks
  - Remove assumptions about network environment (e.g., access to a constant interface)
- User interface that allows a common user (no prior knowledge of DTN) to use the stack and have some idea what they have done
  - Something you can give to my grandmother
- The stack doesn’t stop working when unrelated system configurations are changed

Prior "Deployments"

- DTN used as back-end infrastructure
- DTN stack was not running on client nodes
- Client nodes not used to move bundles
  - Making the DTN stack usable not such an issue in these situations

Standardization Questions

- Is there some nomonal baseline level of functionality the stack should provide in these settings?
- Configuration API - Is there some least common denominator of DTN configurability that should be presented to the user?
- Cross-compatibility of routing
  - Once you give the user the ability to reconfigure, stacks with different configurations will meet.
- Relative/absolute time - Users may legitimately change their system clocks, and right now that breaks the Bundle Protocol.
- Common well-known node discovery

Crucial Practical Question

- What is the right code base to start from?