**Working Prototype Known Problems Report**

**Product: BackupBuddies**

**Team: Free Cloud Backups**

**Known Problems:**

**Unclear storage slider functionality:**

- **Description: Allocating a storage amount less than the amount you are currently hosting does not remove the files, rather it resets the max amount you can store.**
- **Inputs: Sliding the slider below the amount that the user is currently storing**
- **Location: Network.java could be made to choose existing files for deletion**
- **Solution: Implement a function that dynamically chooses files to delete based on to be determined Criteria.**

**Connecting to a new network opens an exponential amount of Connections:**

- **Description: When introducing a new peer to the network, the new peer checks for connection availability for each other peer in the network.**
- **Inputs: Connecting to a network that already has multiple peers on it**
- **Location: Network, Peer, NotifyNewPeer**
- **Solution: Only connect to a set of users when sending or retrieving files.**

**Firewall stuff**

- **Description: Many networks are configured with firewalls that block connections**
- **Inputs: Connect to a peer that is protected by a firewall**
- **Location: The user's network configuration**
- **Solution: if both peers get a NotifyNewPeermessage at the same time, they'll both try to connect. This is basically TCP hole punching. It can sometimes fail.**

**File Upload is implemented synchronous and blocks, sometimes causes freezes with very large files:**

- **Description: When uploading a file, the GUI freezes until the file upload is complete. If the file fails to upload completely, the GUI will stay frozen.**
- **Input: Selecting a peer and uploading a file.**
- **Location: Interface.java, Network.java**
- **Solution: Move upload functionality of the GUI thread, and add locking as needed to avoid data races**

**Event log scrolls to the bottom when new events are added:**

- **Description: Events added to the log will snap the scrollbar to the bottom, not allowing the user to see the new event.**
- **Inputs: When performing any action that displays to the log, (uploading, downloading, setting the encryption password, etc)**
- **Location: GuiMain.java, line 145-151**
- **Solution: Set the scroll bar to only move when the user clicks on it, even if new events are added.**

**Pop-up warning for the slider pops up only once on click when not connected to a network:**

- **Description: The actionlistener stateChanged() fires in different circumstances for different operating systems.**
- **Inputs: Before connecting to a network, allocate different storage sizes multiple times after being warned no change has been made.**
- **Location: GuiMain.java, line 595-608**
- **Solution: Write a custom action listener that is more consistent across operating systems**