

## **Working Prototype Known Problems Report**

**Product: BackupBuddies**

**Team: Free Cloud Backups**

### **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.

### **Strict firewall configurations can block peers from connecting:**

- **Description:** Some networks are configured with firewalls that block incoming or outgoing TCP connections
- **Inputs:** Connect to a peer that is protected by a firewall
- **Location:** The user's network configuration
- **Solution:** Implement TCP hole-punching, although this is not a perfect solution

### **File Upload sometimes causes freezes with very large files:**

- **Description:** Often, the GUI will wait for a file to finish uploading before repainting. In certain circumstances, it can stay frozen on a failed transfer.
- **Input:** Selecting a peer and uploading a file.
- **Location:** Interface.java, Network.java
- **Solution:** Add locking as needed to avoid data races

### **The active location on the log refreshes when a new event is added, even when moving the slider:**

- **Description:** Events added to the log will snap the scrollbar to the new event, only allowing the user to see previous events until a new event is added.
- **Inputs:** When performing any action that displays to the log, (uploading, downloading, setting the encryption password, etc)
- **Location:** GuiMain.java, line 145-151
- **Solution:** Only snap the scrollbar when new events are added and when the user is not currently viewing a different event

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

- **Description:** If the user ignores the first pop-up warning for the storage slider, it will not warn them a second time. 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

### **Able to log off, but no log off button and no clear GUI indication is made to the user**

- **Description:** The user is notified if the connection failed, however it is not clear that the user is actually logged out
- **Inputs:** Changing the password and pressing join when already logged in to a network
- **Location:** GuiMain.java, Network.java
- **Solution:** Add a logout button

**Network connectivity or disabling wifi while the app is open may cause list artifacts or freezing**

- **Description:** Disconnections while uploading or restoring files may cause the GUI to freeze for a couple seconds before resuming normally. Additionally, peers may appear in an incorrect state until reconnecting to the network.
- **Inputs:** While using the app and the internet drops
- **Location:** GuiMain.java, Network.java
- **Solution:** Unknown