

# Monday, October 25, 2004, 6pm

## Meeting Log

### **Purpose: Protocol Brainstorming**

Location: Sun Labs

Secretary: Steven Montgomery

Present: Brandi, Jonas, Jason, Matt, Steven

Guests: none

### **Items Discussed:**

*Meeting time with Salman for next quarter*

- Meeting Tuesday, 7<sup>th</sup> hour in Salman's office

*Slotted Aloha Method*

- Jonas suggested a slotted Aloha method to attempt to limit collisions
- This causes an issue where users need to synch time, which should be avoided

*Hybrid Aloha and Nominal System*

- A hybrid was suggested of a combination of the distributed Aloha system and the nominal host system. When there is a collision, the participants of the collision message the host. The host broadcasts a message with an arbitrary order that everyone implements.
- Have to handle host dropping right after sending a collision "disambiguation". The new host detects that the old host dropped before he receives the disambiguation and sends out his own. Resolve this by handling collisions on disambiguation as well.

*Expiration of message queue*

- Need a significant long wait time to avoid removing messages that need to be re-implemented.
- Could just handle this condition by having users that have removed the message request a resend as if they were new users.

*No Host – Handle collisions locally*

- Like in nominal host system, users have ID based on order they joined.
- When a user receives a message with a duplicate sequence number, they redo all messages from collision sequence number in the order of the user ID. This implies that all actions are absolute and not relative. So, rather than a message of "scale by 2" it would be "make object size a by b".
- Reduces wait caused to random back-off of Aloha system
- Doesn't work for adding objects because you could have a collision on object IDs
  - Perhaps tag object ID's somehow with ID of user that created it.
  - Depends on how Inkscape handles object IDs. Must research/ask Ted.

*Structure of message queue*

- Linked list of linked list

*Choosing best method*

- Would like to have Ted review methods and relate and thoughts or preferences

**Tasks assigned:**

None

**Next Meeting:**

*Time: October 26, 2004, Tuesday, 10<sup>th</sup> hour*

*Location: Sun Lab*

- XMPP document – Bring it with you