MQP Meeting minutes

Date and Time	Thursday 10 October 2013 at 2:00 pm
Venue	Craig's Office
Participants	Curtis, Craig, Krishna, Dan

Item	Notes and Discussion
Progress on the Paper	- Consolidated scattered notes into their relevant sections of the report. - Began adopting an NABC/Heilmeir's mentality for report writing. The report is a mixed bag of bullets, comments, and developed paragraphs.
Evaluation Section	- What do we care about? Metrics such as performance (bandwidth), latency, liability, security. - How will it be scaled? How will we deal with timing out peers, and dynamically changing chunk size per peer. Who buffers out of order data? - Conflict in the wireless spectrum will become a problem, as the peer to peer communication between potentially dozens of routers on a shared channel will be dense. - Trade off who cashes their content, and ask them to send in sequence to avoid conflict - Use Network Simulator (probably NS3) for most trials. Learn the tool over break.
Discussion	- Haven't talked much about security. 2 Big issues, Integrity and Accountability - How do we verify that our peers are sending the correct portion of the file? Zero Knowledge proof - Download a small portion of bytes from the server yourself to check against the peers data. - Non-reputiation and Accountability? Hash the original HTTP request with initiating router's private key, which can be checked with its public key which each neighbor knows about.Then we have a definitive method to prove who originally requested the file. - Sign the HTTP request only, we can't afford to sign each individual chunk. - Figure out what our Security Goals are and how we will guarantee them. - Read some of Anderson's Security Engineering book (now free online).