Cooperative Browser Download Streams

- The Problem
  - Users want to download content as fast as possible
  - Servers want to serve content as efficiently as possible
  - This becomes harder with higher-bandwidth content, and as the load on servers increase

Cooperative Browser Download Streams

- Why is it interesting?
  - Servers can't keep up with demand
  - They need to use things like Content Distribution Networks
  - This costs $$$
  - Is there any way to solve the problem without the service provider incurring additional costs?

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- The Solution
  - Users who are downloading from the server should share the content that they are downloading
  - Other users don't have to go to the origin server to get the content
  - Load is reduced on the server
  - Service providers don't have to spend extra $$$ – onus is on end-users to share the content

Cooperative Browser Download Streams

- Why is it Hard?
  - Incentive
  - Transparency
  - Privacy

Cooperative Browser Download Streams

- Accomplished to Date:
  - Prototype implementation (available on http://www.cs.toronto.edu/~rdanek/CSC2209.html)
- To Do:
  - Handle Network Address Translation problem (possibly)
  - Conduct experiments using Kazaa traces to determine potential bandwidth savings
  - Conduct experiments to determine overhead