

1. What is the problem?

- 1) Most SPDY benefits stem from the use of a single TCP connection, but the same feature is also detrimental under high packet loss.
- 2) There have been several studies, predominantly white papers, but the findings often conflict.
- 3) There are many issues regarding HTTP performance.

2. What are the contributions of the paper?

- 1) A systematic measurement study using synthetic pages and real pages from 200 popular sites that identify the combinations of factors for which SPDY improves (and sometimes reduces) PLT compared to HTTP.
- 2) A page load tool, Eload, that emulates the detailed page load process of a target page, including its dependencies, while eliminating variability due to browser computation. With a controlled network environment.
- 3) A SPDY server push policy based on dependency information that provides comparable benefits to mod\_spdy while sending much less data over the network.

3. What are the conclusions in the paper and how do the authors support their conclusions (for example using measurement study, experimentation, analysis, modeling, etc).

- 1) Used a decision tree analysis to identify the situations in which SPDY outperforms HTTP and vice versa. They find that SPDY improves PLT significantly in a large number of scenarios that track the benefits of using a single TCP connection.
- 2) They examine the complete Web page load process by incorporating dependencies and computational delays.
- 3) They find SPDY benefits to be larger when there is less bandwidth and longer RTTs.
- 4) They find how to use the mechanism of SPDY.

4. What did you like about the paper (or what is the one new/cool thing you learned from the paper)

- 1) They develop tools themselves.
- 2) They find the conflicts among previous papers and challenge the existing policies.

5. What did you not like about the paper? Is there something you don't agree with within the paper? (or how can you improve the paper)

- 1) Deploy SPDY and evaluate on production servers where the network is heavily used and see how it performs.

Bonus: How do you think you can use the techniques described in the paper to solve another problem in a different domain?

- 1) The decision tree method can clearly lay out the problem so that all options can be challenged, and allow us to analyze fully the possible consequences of a decision, provide a framework to quantify the values of outcomes and the probabilities of achieving them. Thus can be used in many other data analysis-related domains.