

Peer-to-Peer Networking

Exercises for lecture P2P Case Study: Freenet

Task 1: Freenet and routing performance

Read article concerning the Freenet routing (provided on the exercise web page): Mache et al., *Look-Ahead Routing Reduces Wrong Turns in Freenet-Style Peer-to-Peer Systems*.¹

Consider issues such as

- How does the routing work in the original Freenet protocol?
- What causes the routing go wrong?
- How bad it is?
- How the proposed N-lookahead routing works?
- Interpret the results presented in table 1

Also, try to think issues which make hard to estimate P2P performance (e.g. how does the self-organising affect)? Does Freenet and anonymity make it even more harder? Why?

References:

¹Mache, J., Anholt, E., Grigoreanu, V., Likarish, T., and Risteska, B. 2005. Look-Ahead Routing Reduces Wrong Turns in Freenet-Style Peer-to-Peer Systems. In Proceedings of the Proceedings of the 38th Annual Hawaii international Conference on System Sciences (Hicss'05) - Track 9 - Volume 09 (January 03 - 06, 2005). HICSS. IEEE Computer Society, Washington, DC, 301.1. DOI=<http://dx.doi.org/10.1109/HICSS.2005.391>