



Generic BitTorrent Logging and Monitoring Interface

Project Proposal, SOA/OS – Autumn 2010

Index terms: P2P systems Keywords: BitTorrent, logging, monitoring Team size: 2 students

1 Project Description

BitTorrent is the protocol responsible with the greatest chunk of traffic in the Internet. The diversity of BitTorrent implementations renders difficult various atempts of analysing protocol and swarm behaviour through logging and monitoring.

We propose the design and implementation of a logging and monitoring interface and its integration into major BitTorrent clients such as libtorrent-rasterbar, Tribler, transmission. The interface will allow generic access to monitor different BitTorrent implementations and logging

2 Objectives

This project aims to deliver the following:

- design and implementation of a generic interface/library for monitoring and logging Bit-Torrent clients;
- integration of the interface into the libtorrent-rasterbar, Tribler and transmission clients;
- deploying experiments and use cases of the monitoring and logging facilities in the integrated clients.

3 Bibliography

• the BitTorrent protocol - http://bittorrent.org/





- B. Cohen Incentives Build Robustness in BitTorrent, Workshop on Economics of Peerto-Peer Systems, 2003
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- Deaconescu R, Milescu G, Aurelian B, Rughiniș R, Țăpuș N. A Virtualized Infrastructure for Automated BitTorrent Performance Testing and Evaluation. Internation Journal on Advances in Systems and Measurements. 2009;2(2&3):236-247. Available at: http://www.iariajournals.org/systems_and_measurements/sysmea_v2_n23_2009_paged.pdf.
- Deaconescu R, Sandu-Popa M, Drăghici A, Țăpuș N. Using Enhanced Logging for Bit-Torrent Swarm Analysis. In: Proceedings of the 9th RoEduNet IEEE International Conference. Sibiu; 2010.

4 Prerequisites

 $\rm C/C++$ programming, Python programming, network controls, version control systems (Git, SVN)