멀티 토런트 환경에서의 BitTorrent의 효율적인 대역폭 관리 기법에 대한 연구

최재영, 한진영, 정태중, 조은상, 권태경, 최양희

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Efficient bandwidth management scheme under multi-torrent environments

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Summary

Today, the Bittorrent has become the most popular peer-to-peer file sharing system. Owing to this success, a lot of researches performed on the BitTorrent system and, most of them only focus on a single-torrent environment, in which every peer participates in a single file sharing. However, in practice, a user usually tries to download multiple files concurrently (i.e. multi-torrent environments). Following to the study of Guo [IMC 2005], over than 85% BitTorrent users participate in multiple torrents concurrently. Therefore, the performance of BitTorrent under multi-torrent environments should be further investigated. In this study, we propose a bandwidth management scheme, which attempts to allocate the limited physical bandwidth more efficiently, to improve the BitTorrent's performance. For the realistic evaluation, we modify the real BitTorrent client, <Open Source Azureus>, to support our scheme, and compare the performance of our scheme with that of the original BitTorrent.