Exposing metadata in BitTorrent as Linked Open Data

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Abstract

The process of obtaining a digital resource in a P2P network consists of three main steps: (1) the identification of the resource using some meta-data information, (2) the identification of the source where the specific content can be downloaded from and (3) the download of the content. Studying BitTorrent as the most successful open Internet application for content distribution one can find that although search is a key part of the BitTorrent infrastructure, the possibility for meta-data search is completely missing from the system. Users can discover content out of band through Web-based torrent search engines called torrent discovery sites. BitTorrent specification does not contain anything about the formats of meta-data information and about the way it should be distributed among the users. In this publication we suggest a framework for exposing metadata of available content in BitTorrent as Linked Open Data making it possible to formulate complex queries about the available content for download. Furthermore we present the design of the concept and reveal the advantages and disadvantages of the suggested scenario.

Keywords: BitTorrent protocol, Linked Open Data, Metadata