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Simulation and Analysis of a Scalable Application Level Multicast Protocol

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Abstract

The aim of this project is to analyze a scalable application level multicast protocol, named DPOCS. DPOCS stands for "Dynamic Proxy Overlay Control System" and is a noble method for distributing layered video contents among a number of interested users in the network of a service provider. This protocol specifies a number of distributed algorithms for the construction and optimization of the overlay tree. In order to analyze the proposed algorithms and for further optimization, especially in networks of dynamic nature such as Internet, simulation is inevitable. In this thesis, we will use a simulation environment to achieve the abovementioned goal, after introducing the DPOCS protocol.

Keywords: Layered video, Application level multicast, Overlay, Simulation.