Internet Optimization by Negotiating Traffic Times

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Abstract : This paper describes a system to optimize the use of the internet by clients requiring downloading of videos at peak hours. The system consists of a web server belonging to a provider of video contents, a provider of internet communications and a software application running on a client's computer. The client using the application software will communicate to the video provider a list of the client's future video demands. The video provider calculates which videos are going to be more in demand for download in the immediate future, and proceeds to request the internet provider the most optimal hours to do the downloading. The times of the downloading will be sent to the application software, which will use the information of pre-established hours negotiated between the video provider and the internet provider to download those videos. The videos will be saved in a special protected section of the user's hard disk, which will only be accessed by the application software in the client's computer. When the client is ready to see a video, the application will search the list of current existent videos in the area of the hard disk; if it does exist, it will use this video directly without the need for internet access. We found that the best way to optimize the download traffic of videos is by negotiation between the internet communication provider and the video content provider.

Keywords : internet optimization, video download, future demands, secure storage

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