



Comparison of Cloud and Social Network Data Transfer Performance on Mobile Platforms

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Within the last few years, the number of mobile devices has seen immense growth. Users are constantly relying on them to access data and to communicate with other people. Mobile devices have a limited amount of storage space available, so often times a user stores them on free storage clouds, and communication is commonly done through social networks. End users expect fast delivery of data, while the provider must locate the data and transfer it to a large number of users. In this study, we focus on analyzing cloud and social network provider data transfer performance to understand how these providers handle data dissemination and their Quality of Service (QoS). We examine two popular social networks: Facebook and Google+, along with several cloud storage providers: Copy Cloud, Dropbox, Google Drive, Mediafire, and OneDrive, on mobile devices. A measurement application was developed on the Android operating system that measures the download and upload times of each provider for smart phones and tablets. The measurements were performed at different locations over Wi-Fi and 3G/4G access to create a realistic scenario of mobile device usage. Overall, we found that cloud storage and online social networks (OSN) have comparable QoS, but OSNs are slightly more efficient for smaller file transfers.



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