Achieving Robust Global Bandwidth Along with Bypassing Geo-Restriction for Internet Users

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**Abstract:**

Not all Internet Service Providers provide a sufficient amount of bandwidth to their users. Although the amount of local bandwidth is reasonable, global bandwidth is not satisfactory at all. Based on bandwidth allocation, location and price; service providers capped their users’ global bandwidth i.e., reducing global internet speed. As a consequence, we observe severe global bandwidth limitation among Internet users. In this article, we implement a flexible and pragmatic solution for Internet users to bypass global bandwidth restriction. To achieve robust global bandwidth, we utilize a combination of communication technologies and devices namely, Internet Exchange Point, Virtual Private Network, chain VPN technology etc. In this project, we show that internet speed of international route i.e., global bandwidth can enhance significantly if there are multiple ISPs use a common IXP and at least one of those ISPs provides pleasant global bandwidth. Usually, regional ISPs use a common IXP to route their local traffic using local bandwidth within the region without wasting global bandwidth. We show that using our proposed method global internet speed of a user can raise several times effectively utilizing assigned local bandwidth. In addition, we also implement a geo-restriction bypassing technique integrating an offshore ISP with local ISP using VPN. Thus, we enjoy tremendous Internet speed along with unrestricted access to the websites.

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