Pricing the Internet : A Model and a Practical Implementation

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Extended Abstract

This article presents a model to price the Internet. As the Internet is on transition, one of the major issues that needs to be discussed, analyzed and resolved is the pricing scheme that should be used in this TCP/IP global network.

Up until now, it seemed acceptable to many users the flat fee pricing scheme, in which the user pays a fixed amount independently of the network utilization. This tarification scheme certainly has advantages like simplicity, lack of overhead on managing and recording network information, and certainly lower costs on the billing preparation. On the other hand, it certainly has a big disadvantage on the allocation of the network resources, that is not necessarily the users that value more the network are the ones that get to use it.

Users (and certainly the large users that go to INET conferences) have been skeptical of the benefits that could appear from an adequate network resource allocation. Particularly, if the allocation comes from a usage sensitive pricing scheme that would charge higher prices to internet addicts.

In this article, we propose a pricing scheme which ends up being a compromise between the two schemes described above. It is similar to a flat fee scheme when the marginal cost of the network is zero, and it is usage (or capacity) sensitive when an upgrade on the links is needed. On other words, there is a shadow price that allows the network to grow. This pricing scheme is different, and certainly better, than the price-cap alternative that has been mentioned lately in the network literature.

The pricing model described in this article has been implemented for over a year by Red de Computadores S.A., one of the Internet access provider in Chile, with excellent results. It has also been proposed to be the chosen pricing model to be used in the Colombian national internet network.

This article also analyzes the theoretical pricing model presented by MacKie-Mason and Varian, showing its attributes and the problems to implement it in practice. A generalization of that model is also presented in this article.

References

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