

**Dave Waks,
Consultant, System
Dynamics Inc.**

dave@system-dynamics.com

A broadband industry pioneer, Dave has worked on residential broadband for nearly 20 years. In the 1990s he directed several of the earliest residential cable modem trials, and later helped MSOs plan and deploy broadband services. When Dave is not busy consulting for clients or co-writing the Report on the Broadband Home, he tests new broadband-related products and maintains the multiple Web sites he's created.

Two Sides to

Dave Says: MSOs Are Paying the Price for "Unlimited Use"

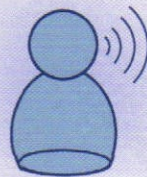
A leaked memo from a major MSO disclosed a plan to trial a tiered pricing structure in one of its Texas systems. Instead of unlimited service, new broadband customers will only be offered plans including caps on monthly usage. The MSO says a small number of users account for much of its network capacity and only a minority of users will feel the effects of the change. (A spokesperson is quoted as saying, "Largely, people won't notice the difference.")

This brought back vivid memories of Prodigy's attempts to control the spiraling cost of e-mail and other services nearly 20 years ago. Prodigy had pioneered flat-rate, "all you can eat" pricing for consumer online services and was very successful in signing up new customers who remembered "\$9.95 a month unlimited" from its extensive promotional campaigns. Prodigy expected revenue from advertising and transactions would pay for increasing subscriber usage.

Several years after Prodigy's 1988 launch, its CFO began to question requisitions to purchase more and more disk capacity, asking what the additional disk drives would be used for. When told they were to store user e-mail, the CFO's office conducted a study that found that a small number of users were using most of the disk space. It was obvious that computers rather than people's fingers on keyboards were generating many of these e-mails.

To limit its run-away costs, Prodigy announced a switch to "usage-based pricing" for e-mail, which didn't sit well with customers. Having started with a strong and successful "flat rate" message, Prodigy lost the confidence of many of its early users, who felt they were doing exactly what the pricing plan encouraged them to do. They left Prodigy for other online services and soon moved to Internet service providers offering unlimited plans.

To launch their broadband services, most U.S. MSOs followed the same approach as Prodigy, promising "unlimited use for a flat monthly fee."



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Most offered a single plan, with no form of tiered pricing. Over the past few years, they have responded to competition by promising ever-faster rates.

Now, their customers are doing exactly what the "unlimited use" plans encouraged — surfing increasingly rich Web sites, downloading music and videos, watching streaming video on their PCs and soon on their TV sets. There's no doubt that the cost of supporting some of the heaviest users far exceeds what they're paying for the service.

MSOs now face the same dilemma as Prodigy: How do you limit the impact of the heaviest users without antagonizing the rest? Many MSOs use "throttling" technologies to limit the bandwidth allocated to certain

streams; this can be effective in limiting the amount of bandwidth consumed by peer-to-peer services. Some MSOs have enforced unpublicized bandwidth limits, first warning users who go over the undefined maximum and canceling their accounts if their usage stays high. Others have had formal bandwidth caps in place for some time, but enforce them only when grossly violated.

Many think streaming video will become the next "killer app" for broadband. Video providers have started offering streaming video over broadband. Microsoft and NBC just announced that they will offer thousands of hours of video from the Beijing Olympics this summer.

The approaches MSOs have taken to limiting bandwidth consumption — largely in response to the explosive growth of P2P — could wreak havoc if applied to streaming video from legitimate providers. Throttling would make videos unwatchable. Bandwidth caps — in the absence of reasonable charges for excess usage — could drive customers to other service providers. Politicians will react angrily if voters complain that they can't watch the Olympics in the middle of a tight election.

Remember what happened to Prodigy. There's not much time left to get it right.