



# Four nightmares for net neutrality

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..... What is the economic substance behind net neutrality, the populist policy debate *du jour*? Today I would like to avoid legalisms and bomb-throwing phrases, and, instead, assess the basic economics.

To be sure, this debate has many arcane facets. For example, a couple years ago the FCC legally exempted US broadband firms—cable modem and DSL providers—from what are known as “common carrier” obligations. Phone companies have lived under these obligations for decades. In brief, common carriers are not responsible for the content of a message; they *are* responsible for carrying it and not altering it. This ruling recently survived a Supreme Court review (in a case called *Brand-X*).

Why does that matter? It shapes the Internet. Sure, it’s arcane, but it’s too important not to understand.

### Defining the setting

Most homes in the US have access to no more than two broadband suppliers—a cable company and a local telephone company. In less dense settings, there is only one supplier, if any. The next best alternative, satellite, is much more expensive.

Firms in monopoly and duopoly settings have what economists call *market power*. While one would be more precise about the definition for a legal proceeding, for this column the following shorthand will have to do: A firm with market power does not lose many customers when it offers

“take-it-or-leave-it” contracts with higher prices or undesirable provisions.

Is this a problem? If so, why?

Net neutrality advocates worry that broadband providers will accumulate more market power in the near future. As of last year, more US households used broadband than dial-up Internet access. As more use it every day, concern grows that broadband firms will not be restrained by the usual discipline of the market. That is, when these firms take undesirable action, grumbling customers won’t be able to take their business elsewhere.

There is a further concern that market power will shape changes to the Internet over the next decade. This is speculation, and this is also where the debate usually becomes heated.

Every futurist forecasts improvement in broadband technologies. Futurists foresee multiple tiers of service: a low-price, low-quality option; and at least one high-price, high-quality option. Users will segment themselves among the options. Bandwidth hogs will pay more for the resources they use.

So far, there’s nothing disturbing about this forecast. Many markets work this way, so why not broadband?

The debate becomes more provocative with a couple additional pieces of speculation: First, access firms will imitate the marketing behavior of cable television firms. For example, the premium tier might include Internet video on demand, other IPTV of various forms, and instant

messaging with proprietary webcams, all arranged and supplied by the access firm for high-tier users.

One more factor completes the picture: *Brand-X* survived Supreme Court review. This means there is no regulation against broadband firms arranging the content and bandwidth for their tiers in any way they believe best suits their business needs.

In the eyes of net neutrality advocates, these two factors together open the door to a few “nightmares.” I will describe them in a moment.

To be fair to the FCC, as part of the negotiations over *Brand-X*, the commission also issued some guiding principles about how Internet providers should behave. On 23 September 2005, along with a few other principles, the commission endorsed the view that users should be able to access the entire lawful Internet.

For reasons I cannot explain, unlike typical FCC rulings, these declarations of principles were and are just that, declarations. They do not have the force of regulatory rulings. They are also rather vague on the details, at least in comparison to other FCC rulings.

I’m not a lawyer, but I do understand why net neutrality advocates reacted to this ambiguity with alarm. Legal restraints shape behavior, they said. Nonbinding guiding principles might not. Since it will be difficult to undo damage to the Internet, they said, policy should anticipate nightmare scenarios and act now to prevent them.

## Nightmare scenarios

I have examined the nightmares of most net neutrality advocates, and I count four distinct scenarios (so far). Let's review their economics and see how plausible they are.

One scenario is what we might call the "inequity nightmare." That is, a firm with market power has incentives to encourage purchases of the higher tier, where the profit margins are more lucrative. Broadband firms will put together a bland basic bundle, focusing all marketing and organizational energy on the more profitable, high-priced bundles.

On one level, the economics seems plausible but not bothersome. After all, the Internet today already involves a mix of speeds and segments.

Net neutrality advocates counter that several years of investment at the upper tier will lead to an advanced Internet that remains available to only a small part of society. Over time, mass-market users will not experience new applications, whose wide availability has been one of the network's distinct characteristics to this point.

A second scenario is a "corporate bureaucracy nightmare." It stresses the mistrust between some Internet denizens and large corporate broadband firms. The scenario sounds most authentic when it comes from a mouthy Internet junkie half my age, but I can capture its spirit.

It goes something like this: What will happen to a new, adventuresome Web site that operates better on the upper tier or requires technical assistance from the access providers? The cutting-edge site will want to be available to all, but telephone or cable companies will insist that the user move to a more expensive tier. By this view, broadband firms will find bureaucratic reasons to make their own life easy and to make the cutting edge more expensive for users.

Both these scenarios motivate calls for either a "must-carry" or "no-blocking" statute for the basic tier. Indeed, seemingly in deference to these concerns, the FCC's principles of 23 September 2005 refer to such concerns in a general way—albeit, as noted, without a reassuring amount of specificity.

The third scenario might be labeled the

"bad incentive nightmare." It stresses that most broadband firms have their own voice service. That motivates a provocative question: Why would a broadband firm do anything to help the market interests of another provider of voice over IP (VoIP) that competes with the access firm's own services?

This nightmare gains momentum from other longstanding debates about whether local telephone companies should require users to pay for a voice line as a condition for renting a DSL line. Net neutrality advocates see their suspicions confirmed in telephone companies' reluctance to unbundle these purchases until regulators require it.

There has already been one regulatory case over the obligations of cable firms to VoIP providers (called *Madison River*). If net neutrality advocates are to be believed, this will not be the last such instance of conflict.

While I find the economics of this scenario easily understood, one case by itself does not persuade me. I would be more convinced by dozens of lawsuits between cable firms and VoIP providers. Accusers should produce dead bodies to support allegations of serial murder, after all.

The fourth scenario is a "less innovative content nightmare." This nightmare involves worries that broadband firms will create new applications or new business alliances, and then protect their interests in those applications to the disadvantage of other providers of new Internet applications.

For example, once an access firm has an economic relationship with an adventuresome video site, what is to stop it from sharing revenue if it steers traffic to the partner? Related, what is to stop the access firm from excluding from its enhanced tier any competitor to the preferred partner site, even a young YouTube?

On the surface, these provocative questions seem overwrought. After all, cable firms had deals with @home in the past, but, as often happens in high tech, those did not work out (it's a long story). Today, broadband firms are making deals with firms such as Yahoo!, Google, Akamai, and others. Nothing particularly alarming has happened.

Net neutrality advocates counter that prior innocuous behavior does not predict the future. Access firms now have the technical ability to efficiently discern the origins of data. Moreover, under the new court rulings, broadband providers do not have any legal or economic obligation to content firms with whom they do not have a commercial contract.

One other factor motivates nightmare number four: Innovative applications continue to emerge from unexpected places. For example, YouTube, MySpace, and Facebook all cut their teeth in the vast unorganized jungle of the Internet rather recently. Now each has tens of millions of users. Nobody saw that success coming except the owners and webmasters.

Net neutrality advocates worry that business will become more difficult for young experimental sites that do not (or cannot) prearrange contracts with broadband firms. Will small sites bother to innovate if it confronts the commercial interests of broadband access providers? This also is an argument for a "must-carry" provision, aimed at alleviating the fears of potential innovators.

## A debate worth having?

Generally speaking, I am skeptical of speculative visions that assign vague, malevolent motives to corporate behavior. That outlook usually does not produce sound economic reasoning. Yet, I must confess that in this instance I can appreciate just how others developed such an outlook.

For example, consider this recent event: Near the end of its filings posted 16 October this year on the FCC Web page, AT&T (formerly SBC) suggested conditions it would accept in exchange for the FCC's permission to merge with Bell South. It agreed to follow the set of FCC principles for DSL providers for the next 30 months.

Even I have to admit that this looks halfhearted. Why for only the next 30 months? Why as a condition to gain approval to a merger? Why at the end of such a document and without a major PR campaign? This nuanced negotiating tactic with the FCC might make sense to a lawyer, but it does not inspire trust.