

Consultation on Net Neutrality

One of the key facts to bear in mind when considering issues of Net neutrality is that the Internet works. Over the last two decades it has produced an unprecedented series of technical innovations that have already transformed many branches of everyday life, and the pace of change shows no sign of abating. If anything, the Internet and the novel ideas it is built on are embedding themselves even deeper into modern society.

As a result, a paramount consideration must be to preserve an ecology that has functioned and continues to function so well. To allow changes to be made without considerable evidence that they will help rather than harm the functioning of the Internet would be ill-advised.

Although the Internet consists of many elements, operating at many levels, one of the core reasons that innovation has flourished is precisely because the principle of Net neutrality has always been assiduously preserved.

There is no better example of this than the rise of the World Wide Web. Hard though it may be to believe for people today, but once there was no Web on the Internet. Instead, there were other services like Gopher and WAIS. And then, in August 1991, Tim Berners-Lee announced a new way of using the Internet, which he called the World Wide Web.

Imagine if the principle of Net neutrality had not been in operation at that time. Then operators of other services on the Internet – sensing perhaps that this new Web might be a challenge to them – could have paid to ensure that their services were always delivered more speedily than any Web traffic. As a result, the Web would have appeared interesting but slow to users, who would probably have stayed with their current providers.

In fact, no less a person than Sir Tim Berners-Lee himself says this might have happened, in a post called “Net Neutrality: This is serious” about the threat to Net neutrality in the US (at <http://dig.csail.mit.edu/breadcrumbs/node/144>):

“When I invented the Web, I didn't have to ask anyone's permission. Now, hundreds of millions of people are using it freely. I am worried that that is going end in the USA.

...

I hope that Congress can protect net neutrality, so I can continue to innovate in the internet space. I want to see the explosion of innovations happening out there on the Web, so diverse and so exciting, continue unabated”

Net neutrality is about preserving a level playing-field so that innovation can emerge and flourish unhindered by incumbents who might otherwise use their chequebooks to throttle fledgling services. It is about ensuring that the Net remains a hotbed of creativity, and does not ossify or become captured by powerful but sclerotic industries.

Thus I believe that it is important to legislate against any moves to violate Net neutrality. In the same post quoted above, Berners-Lee explains well why we need to introduce this:

“There have been suggestions that we don't need legislation because we haven't had it. These are nonsense, because in fact we have had net neutrality in the past -- it is only recently that real

explicit threats have occurred.

...

Yes, regulation to keep the Internet open is regulation. And mostly, the Internet thrives on lack of regulation. But some basic values have to be preserved. For example, the market system depends on the rule that you can't photocopy money. Democracy depends on freedom of speech. Freedom of connection, with any application, to any party, is the fundamental social basis of the Internet, and, now, the society based on it."

Of course, it is not enough simply to enforce Net neutrality in isolation: it is also crucially important to address the other issues facing the growth of the Internet, specifically the threat of congestion.

That threat is certainly real, but it seems to me that some companies are using that real problem to justify inappropriate solutions that promote their own agendas. For example, a trivial solution to problems of congestion is to upgrade the entire network, giving everyone faster connections. That, of course, would require investment in the appropriate infrastructure, and many companies prefer not to take on those costs, and to address the issue by throttling their users' connection, say.

That is understandable, but not necessarily acceptable: the Internet will need upgrading anyway, for many years to come. So companies cannot avoid making investments eventually. They are simply trying to put that time off in order to increase the return on their previous investments. Again, that is perfectly understandable, given the way companies work, but it is not for the European Commission to endorse that particular approach. Instead, it should take a neutral point of view, and seek to encourage a solution that maximises the benefit for all concerned – the companies supplying the connection and the users.

So the question then becomes: how can congestion be addressed without destroying one of the Internet's foundational properties? I think the solution lies in making traffic management more transparent.

It is a cliché that if you cannot measure something, you cannot manage it. Similarly, if Internet users were able to see the details of their connection, it would be relatively simple for them to adjust those according to their needs. This would put users in charge of their traffic management, not the ISPs.

For this to work, users could be given a certain allowance of priority traffic each month. If they wanted to watch a video-on-demand stream, they could ensure that delivery were prioritised by assigning some of that allowance to that service for a fixed period. If users found they needed more priority bandwidth they could purchase this – either as a one-off, or by moving to a higher tier service.

It would also be possible for ISPs to create entirely separate services for specific purposes. For example, gamers who require low latency all the time they play could sign up to a more expensive service that was quite separate from the normal domestic or business ones. Congestion in those would not affect the service in the gamer channel. Again, market forces would allow pricing for such forces to emerge, and for competition between ISPs to drive innovation in terms of what control would be offered, and the trade-off between different services.

Note that in neither of these two possible approaches would Net neutrality be endangered, because the power resides with the user. So if some new Internet-based service came along, it might be

prioritised by those users, but could not be throttled by existing players in the Internet world, since they would have no simple means of influencing millions of individual subscribers.

The two key points I would like to emphasise, then, are preserving Net neutrality, which has served the Internet – and the world – so well, and allowing users to manage their traffic by going beyond simple transparency to full control. The former will allow the next Web to emerge; the latter will enable users to make choices about their Internet connections while permitting the companies that provide the Internet's infrastructure to make sensible business investments for the future.

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