

To: Committee on Energy & Commerce, US House of Representatives

Fr: Bijan Sabet

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Re: Deep Packet Inspection Testimony

My name is Bijan Sabet and I'm a General Partner at Spark Capital. Spark Capital is a venture capital firm based in Boston, MA. We are managing & investing \$620M.

We make direct investments in early stage companies in the Internet, media and technology industries. To date we have made 25 investments in this area. It will most likely be over 30 companies by next year. Our companies are generating real value, real technology, real revenue and real jobs.

Deep Packet Inspection is something that I care a great deal about and will directly impact the Internet ecosystem which is beginning to thrive.

As a technology itself, there is nothing wrong with DPI. It's a significant technology breakthrough. Up until fairly recently, DPI could not be achieved at scale at any reasonable cost.

The issue about DPI is how it's implemented. How it's managed.

What is Deep Packet Inspection?

Wikipedia cites it well when it states

(http://en.wikipedia.org/wiki/Deep_packet_inspection):

“Deep packet inspection (DPI) (or sometimes complete packet inspection) is a form of computer network packet filtering that examines the data and/or header part of a packet as it passes an inspection point, searching for non-protocol compliance, viruses, spam, intrusions or predefined criteria to decide if the packet can pass or if it needs to be routed to a different destination, or for the purpose of collecting statistical information. This is in contrast to shallow packet inspection (usually called just packet inspection) which just checks the header portion of a packet.

Deep packet inspection (and filtering) enables advanced security functions as well as Internet data mining, eavesdropping, and censorship.”

We need to understand the impact of DPI. DPI can provide significant economic and consumer benefit if used correctly.

But it could cause significant problems if used incorrectly.

Issues to consider:

1. Privacy. What should be disclosed and how.
2. Open or closed Internet.

Privacy.

Companies that benefit from the use of DPI should disclose to consumers what they are doing, how they are doing it and what they will do with information acquired by DPI.

My interest in providing this testimony is less about privacy and more about DPI's impact on the open Internet & the Internet ecosystem.

The important questions is: Do we want an open Internet or a closed Internet where ISPs can decide what content & applications should be available. As an example: should ISPs decide if a competitors product will be able to flow through to the home or not.

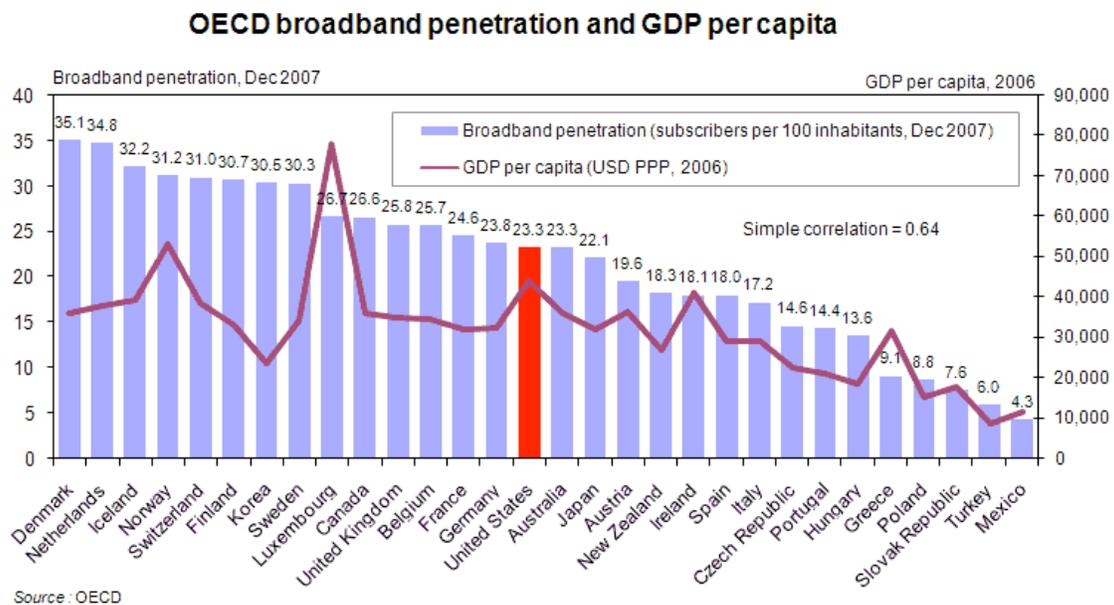
That is the topic I want to discuss with all of you.

We all have seen the explosion and growth of the Internet in the business and consumer markets. It has been a large success. High speed Internet to the home has fueled this growth with applications ranging from Apple's iTunes, Google's YouTube, NBC/FOX joint venture Hulu. The world and growth is moving fast. Consider Netflix, which was once only a mail order dvd rental company, is now streaming full length movies on demand over the Internet to their subscribers. The impact of high speed Internet has only just begun. Hundreds and hundreds of startups are being funded

by venture capitalist because entrepreneurs and investors see the value in the open Internet.

And while the Internet is growing rapidly and investors are pouring money into new ideas, new opportunities, new businesses, new jobs & funding new technology, US broadband penetration isn't as good as it should or could be.

This chart is from The Organization for Economic Co-Operation and Development (OECD) and shows that in 2007 the United States was ranked 15th in terms of broadband penetration.



Hopefully we would all agree that it is in our economic self interest to explore ways to make the United States a leader in high speed Internet access. We need more

applications and user benefits to increase broadband adoption in the United States. We need lower costs of service. We need national coverage.

The open Internet and growing broadband penetration are the key economic drivers of the Internet ecosystem and economy from my perspective as a venture capitalist.

And that brings me back to the topic of DPI and it's potential negative impact on the open Internet. Many are calling this topic of the open Internet a discussion around network neutrality, which is the principle about an open network with restrictions only for legal purposes.

The danger is that ISPs would & could use DPI as a way to turn off or slow down 3rd party applications or 3rd party services. Recently the FCC discovered that this was happening with a large ISP and a 3rd party. In this case a start up company called BitTorrent.

We don't have to imagine what would happen if ISPs did this. We have only to look at the mobile industry. Many venture firms like mine are investing in mobile but cautiously compared to the open Internet sector.

Why? Consider the biggest success startup success stories. The vast majority are open Internet companies.

What startup companies have created billions of dollars of value and thousands of jobs in the mobile space. There are some but examples are far less than the open Internet ecosystem. That's because the mobile Internet is closed for the most part in

the United States. Carriers are able to block web sites and 3rd party applications and services. As a result of this closed network, most consumers in the United States aren't signing up for internet access on their mobile phones which means a less attractive market for innovation and the cycle spins downward.

If ISPs do the same for the high speed Internet market to the home it would have a significant long term impact on the economy. Venture firms like ours would look for investments in other areas that had fewer restrictions. Less VC funding means less startups, which means less businesses, less jobs, less innovation. Not a pretty picture.

We need to a healthy and growing broadband market in the United States. I want our cable companies and telephone companies to thrive and grow their businesses with new technology and capabilities. New applications will help them sell more services too. But it should not be at the consumers expense or the internet ecosystems expense.

We are in the early days of the open Internet. We need to support the open ecosystem and support it. Not get in the way.

Thanks for your time & consideration

Regards,

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